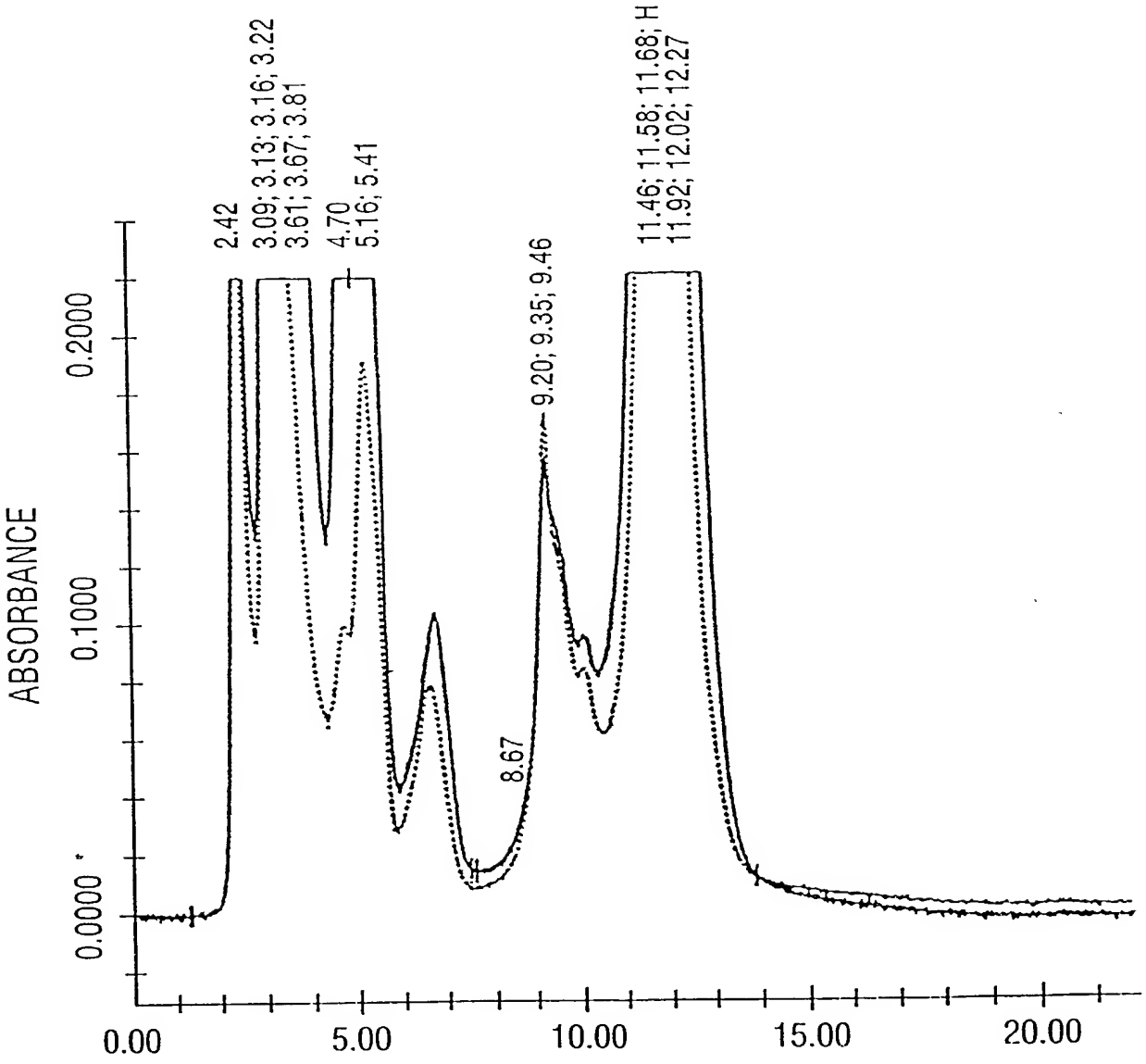


FIG. 1A

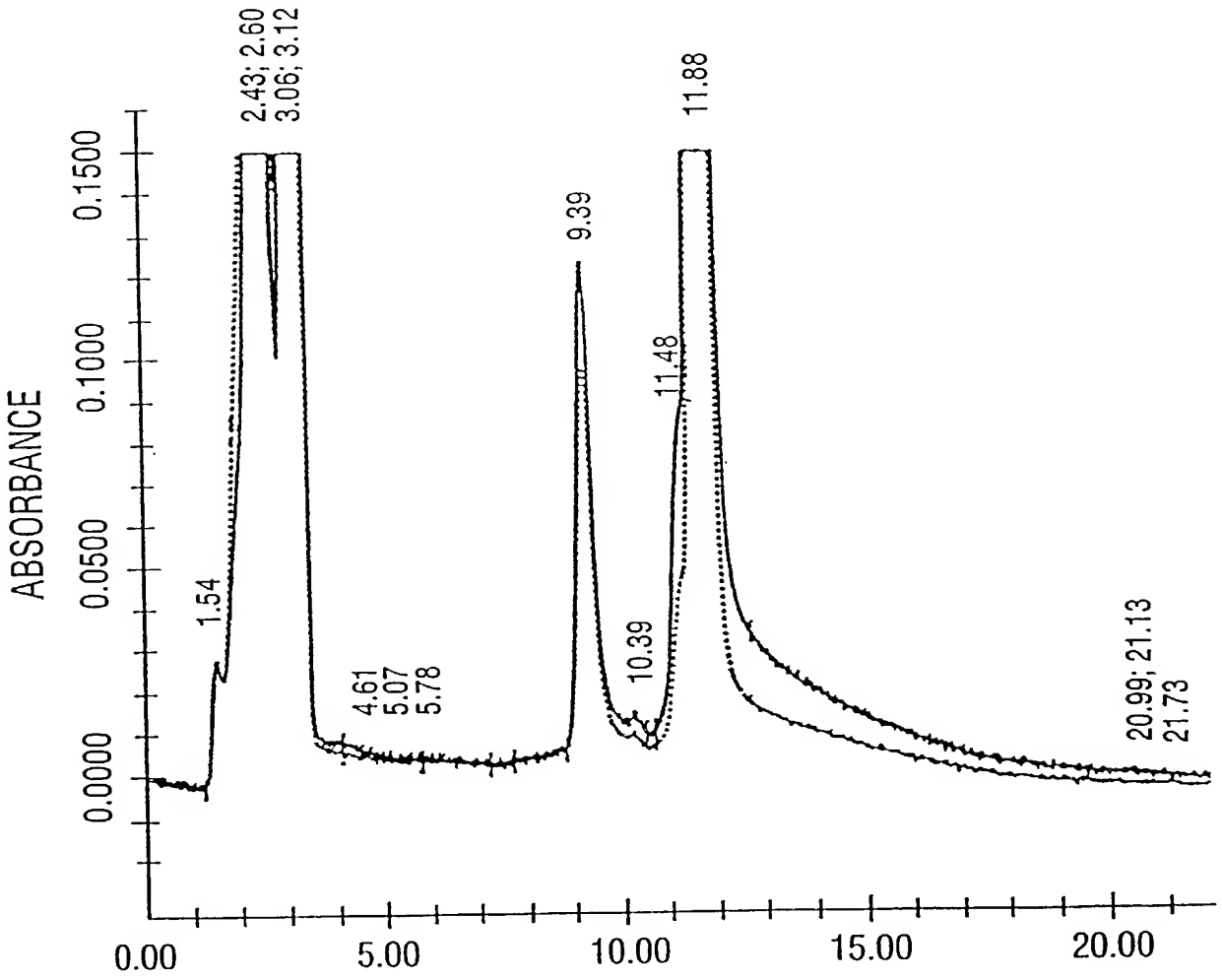

ABSORBANCE
0.0000
0.0500
0.1000
0.1500
0.00
5.00
10.00
15.00
20.00
1.54
2.43; 2.60
3.06; 3.12
4.61
5.07
5.78
9.39
10.39
11.48
11.88
20.99; 21.13
21.73

FIG. 1B

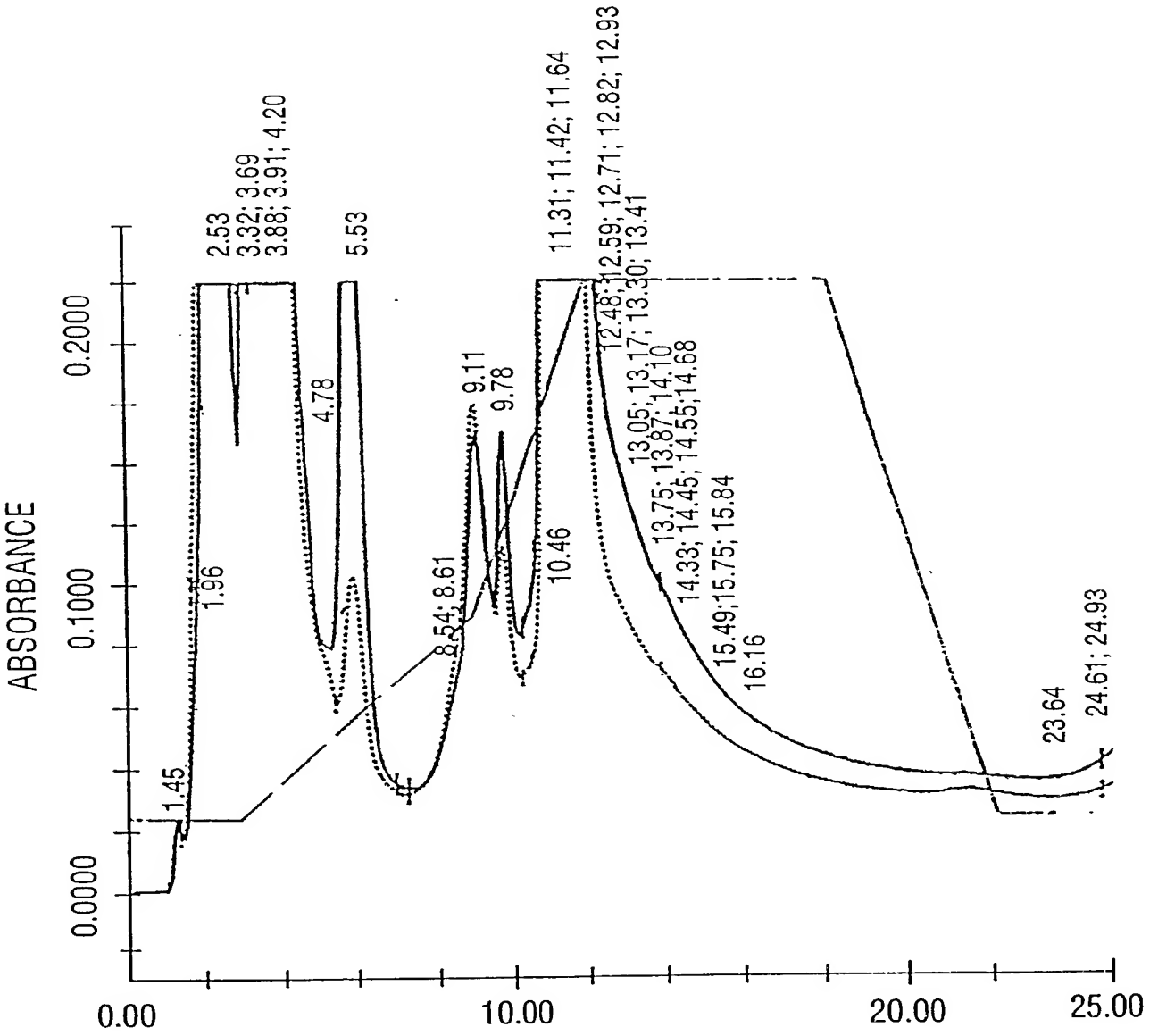

ABSORBANCE
0.2000
0.1000
0.0000
0.00
10.00
20.00
25.00
1.45
1.96
2.53
3.32; 3.69
3.88; 3.91; 4.20
4.78
5.53
8.54; 8.61
9.11
9.78
10.46
11.31; 11.42; 11.64
12.48; 12.59; 12.71; 12.82; 12.93
13.05; 13.17; 13.30; 13.41
13.75; 13.87; 14.10
14.33; 14.45; 14.55; 14.68
15.49; 15.75; 15.84
16.16
23.64
24.61; 24.93

FIG. 2

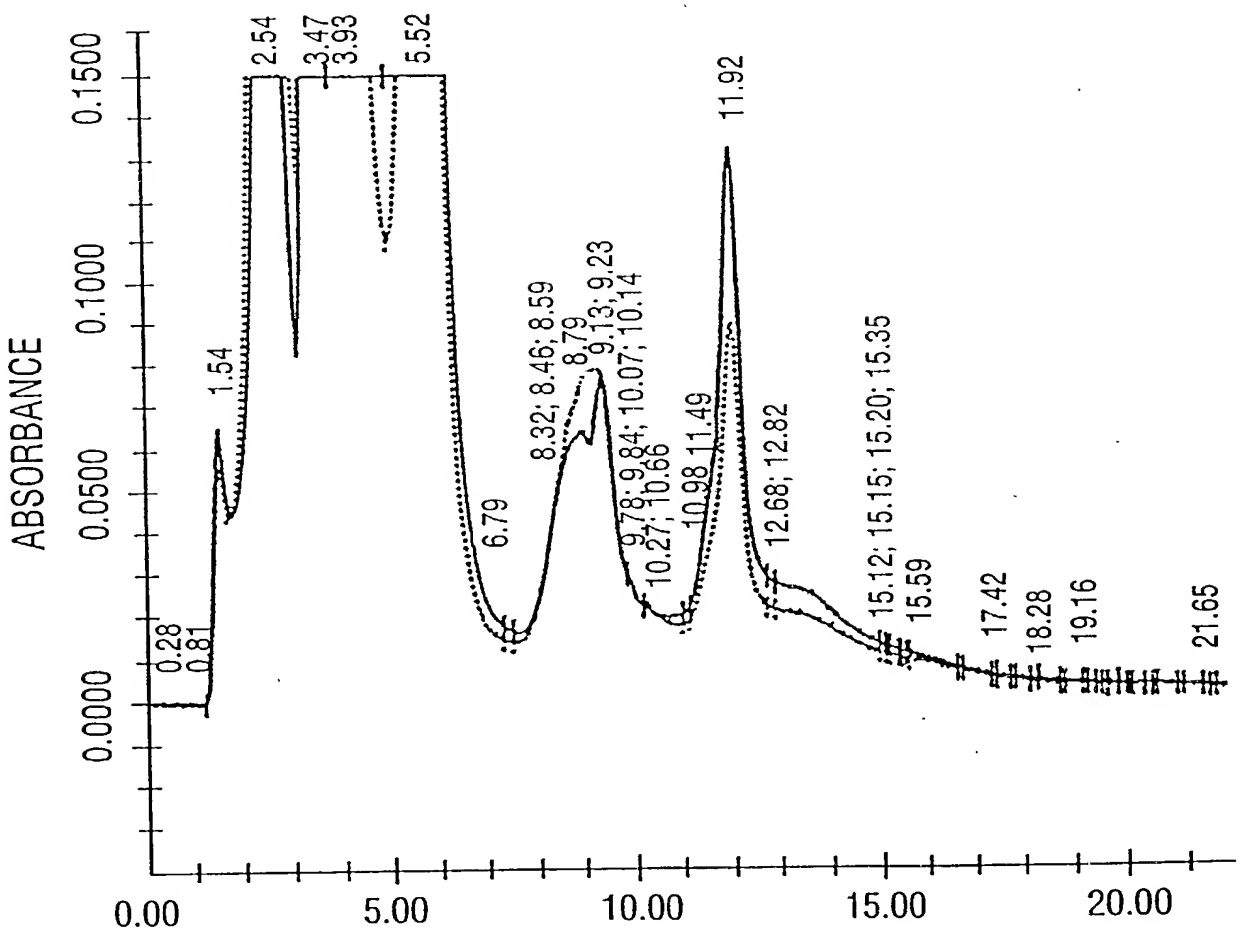

ABSORBANCE
0.0000
0.0500
0.1000
0.1500
0.00
5.00
10.00
15.00
20.00
0.28
0.81
1.54
2.54
3.47
3.93
5.52
6.79
8.32; 8.46; 8.59
8.79
9.13; 9.23
9.78; 9.84; 10.07; 10.14
10.27; 10.66
10.98 11.49
11.92
12.68; 12.82
15.12; 15.15; 15.20; 15.35
15.59
17.42
18.28
19.16
21.65

FIG. 3B

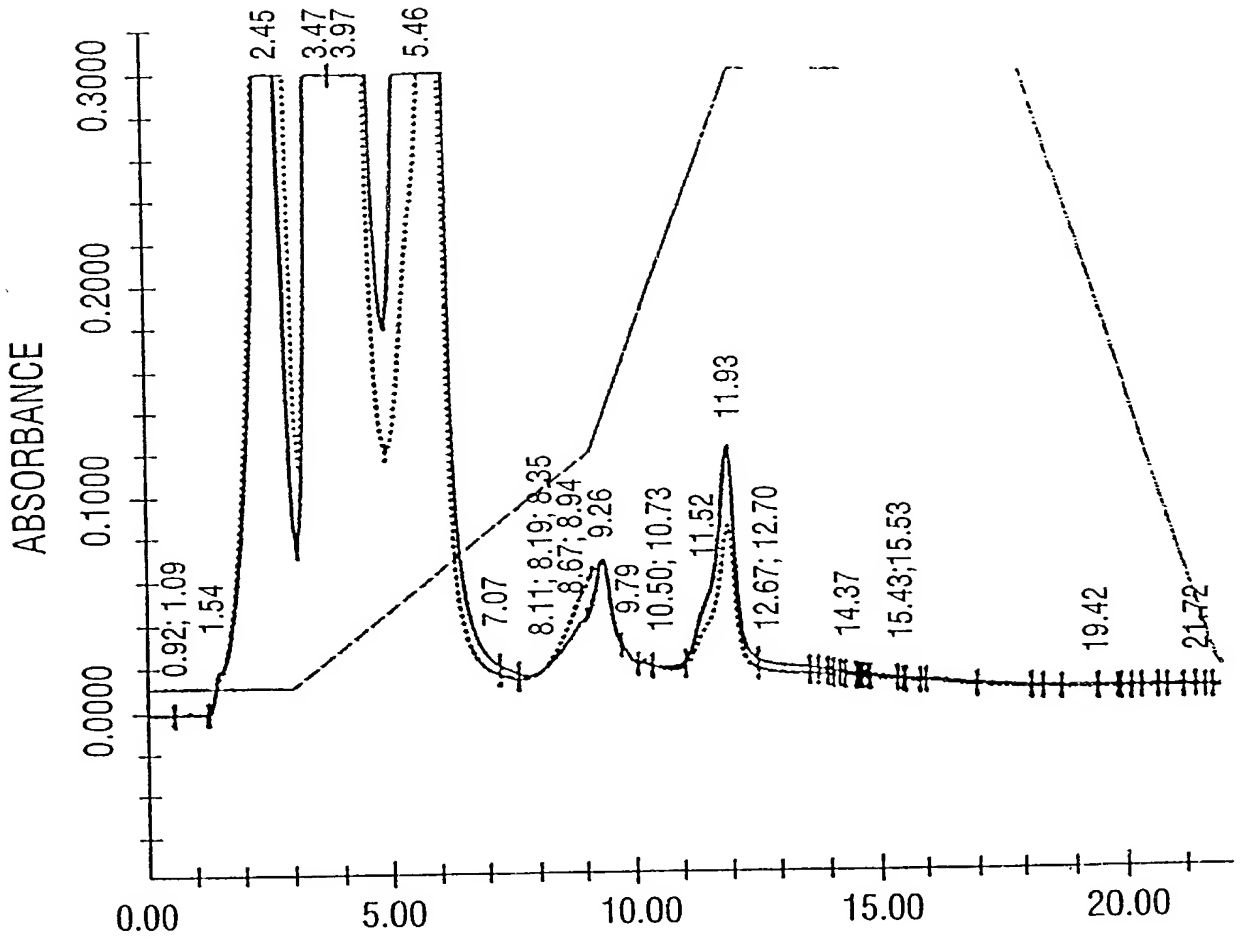

ABSORBANCE
0.0000
0.1000
0.2000
0.3000
0.00
5.00
10.00
15.00
20.00
0.92; 1.09
1.54
2.45
3.47
3.97
5.46
7.07
8.11; 8.19; 8.35
8.67; 8.94
9.26
9.79
10.50; 10.73
11.52
11.93
12.67; 12.70
14.37
15.43;15.53
19.42
21.72

FIG. 3C

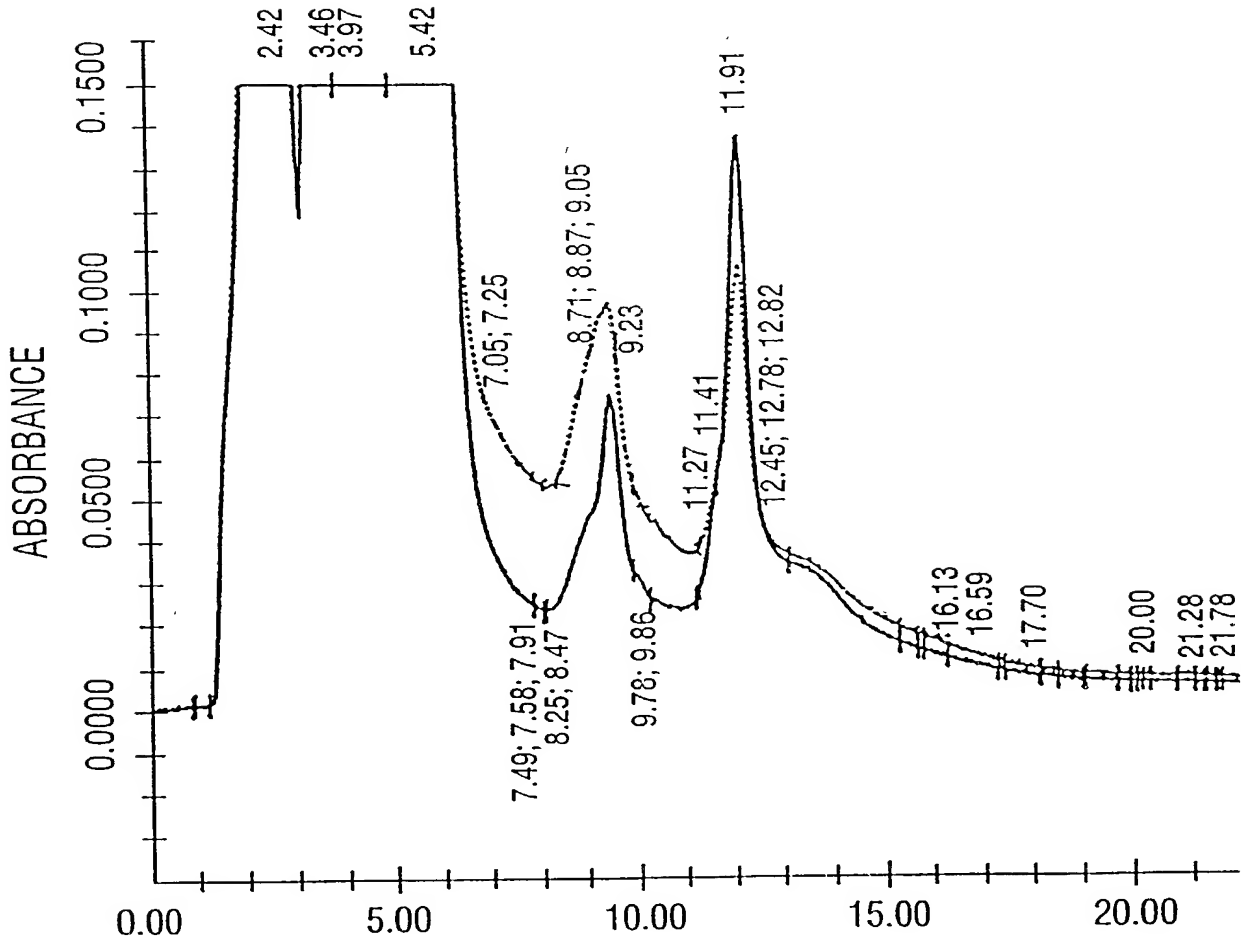

ABSORBANCE
0.0000
0.0500
0.1000
0.1500
0.00
5.00
10.00
15.00
20.00
2.42
3.46
3.97
5.42
7.05; 7.25
8.71; 8.87; 9.05
9.23
11.27
11.41
11.91
12.45; 12.78; 12.82
16.13
16.59
17.70
20.00
21.28
21.78
7.49; 7.58; 7.91
8.25; 8.47
9.78; 9.86

FIG. 3D

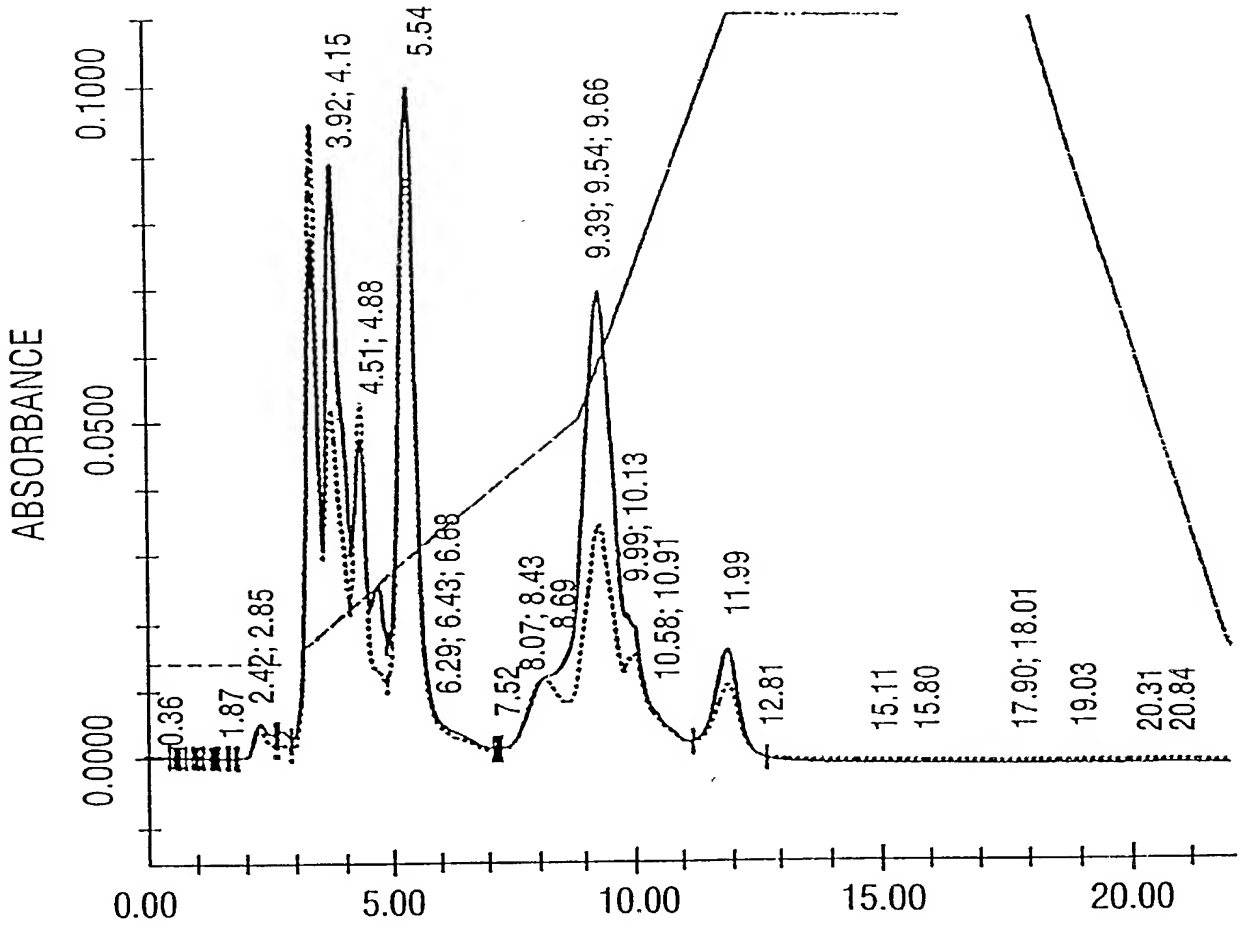

ABSORBANCE
0.1000
0.0500
0.0000
0.00
5.00
10.00
15.00
20.00
0.36
1.87
2.42; 2.85
3.92; 4.15
4.51; 4.88
5.54
6.29; 6.43; 6.68
7.52
8.07; 8.43
8.69
9.39; 9.54; 9.66
9.99; 10.13
10.58; 10.91
11.99
12.81
15.11
15.80
17.90; 18.01
19.03
20.31
20.84

FIG. 3E

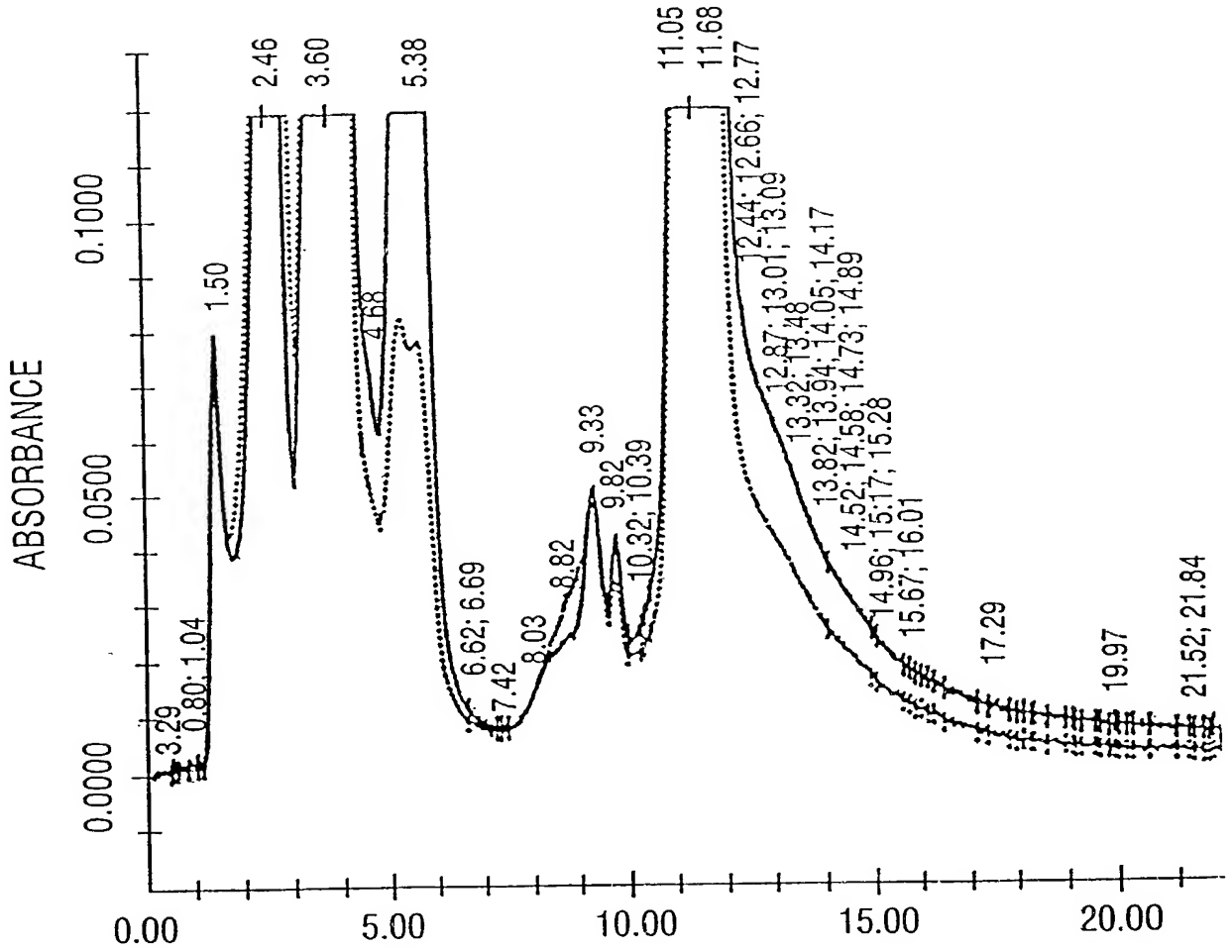

ABSORBANCE
0.0000
0.0500
0.1000
0.00
5.00
10.00
15.00
20.00
3.29
0.80; 1.04
1.50
2.46
3.60
4.68
5.38
6.62; 6.69
7.42
8.03
8.82
9.33
9.82
10.32; 10.39
11.05
11.68
12.44; 12.66; 12.77
12.87; 13.01; 13.09
13.32; 13.48
13.82; 13.94; 14.05; 14.17
14.52; 14.58; 14.73; 14.89
14.96; 15.17; 15.28
15.67; 16.01
17.29
19.97
21.52; 21.84

FIG. 4A

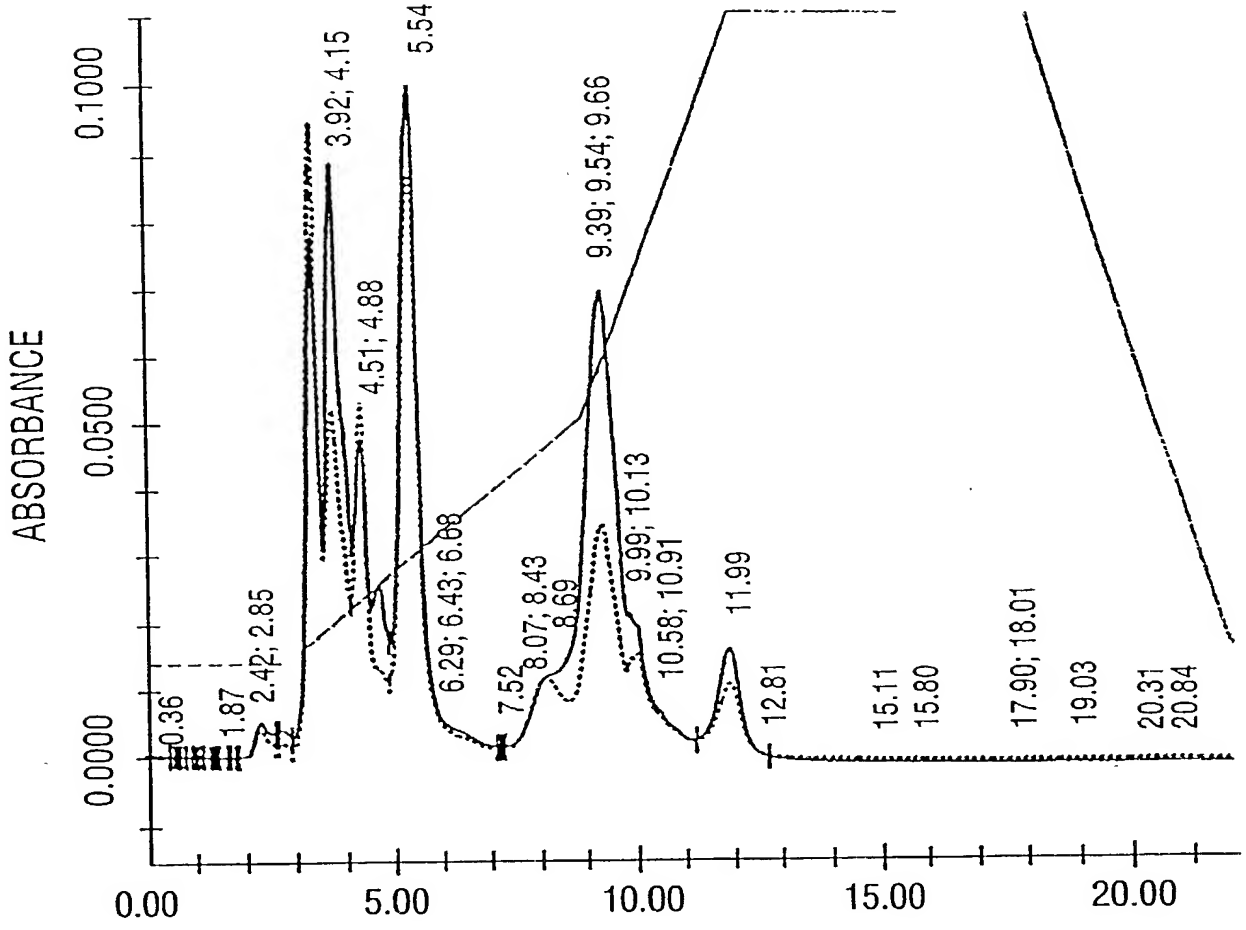

ABSORBANCE
0.1000
0.0500
0.0000
0.00
5.00
10.00
15.00
20.00
0.36
1.87
2.42; 2.85
3.92; 4.15
4.51; 4.88
5.54
6.29; 6.43; 6.68
7.52
8.07; 8.43
8.69
9.39; 9.54; 9.66
9.99; 10.13
10.58; 10.91
11.99
12.81
15.11
15.80
17.90; 18.01
19.03
20.31
20.84

FIG. 4B

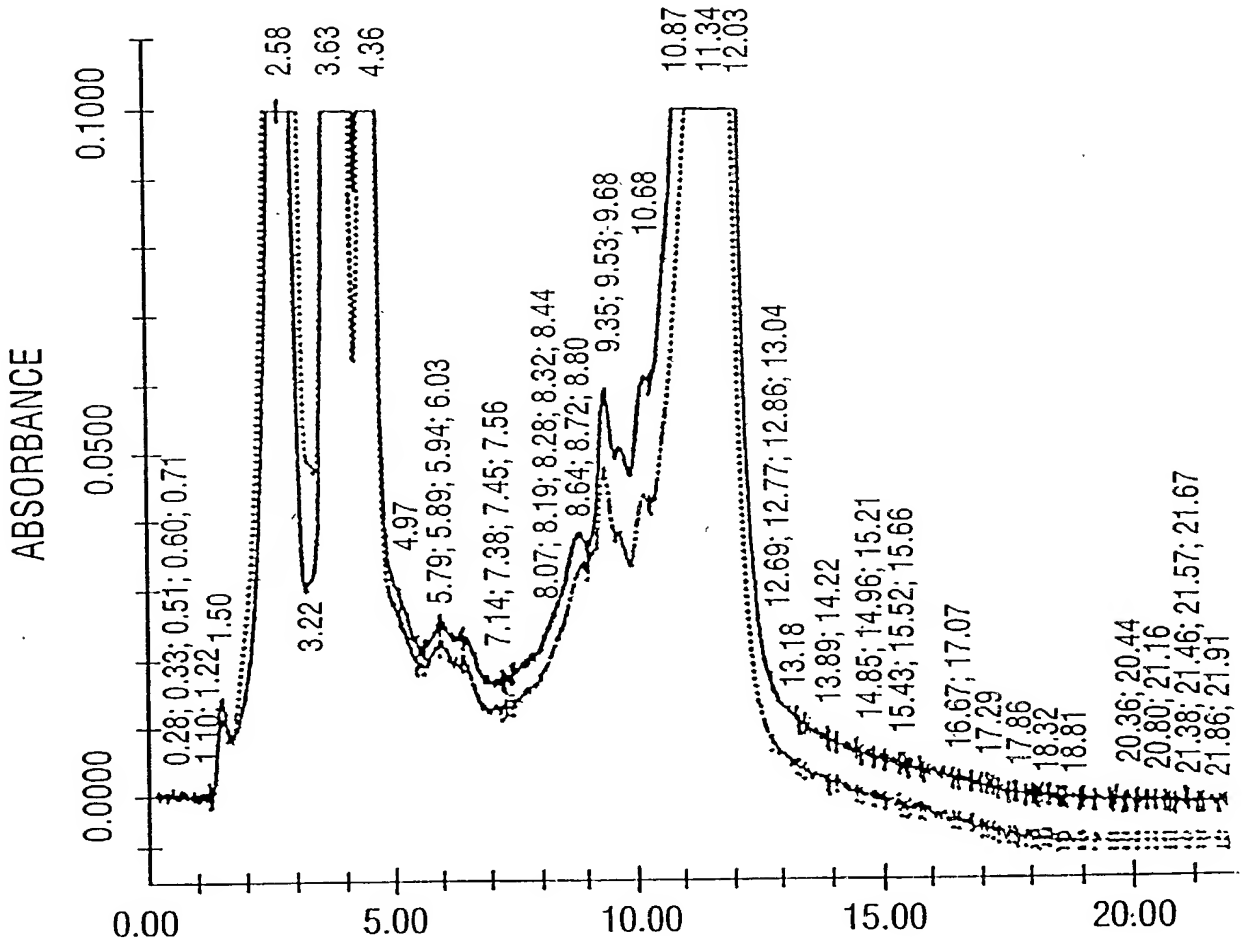

ABSORBANCE
0.1000
0.0500
0.0000
0.00
5.00
10.00
15.00
20.00
0.28; 0.33; 0.51; 0.60; 0.71
1.10; 1.22 1.50
2.58
3.22
3.63
4.36
4.97
5.79; 5.89; 5.94; 6.03
7.14; 7.38; 7.45; 7.56
8.07; 8.19; 8.28; 8.32; 8.44
8.64; 8.72; 8.80
9.35; 9.53; 9.68
10.68
10.87
11.34
12.03
12.69; 12.77; 12.86; 13.04
13.18
13.89; 14.22
14.85; 14.96; 15.21
15.43; 15.52; 15.66
16.67; 17.07
17.29
17.86
18.32
18.81
20.36; 20.44
20.80; 21.16
21.38; 21.46; 21.57; 21.67
21.86; 21.91

FIG. 5

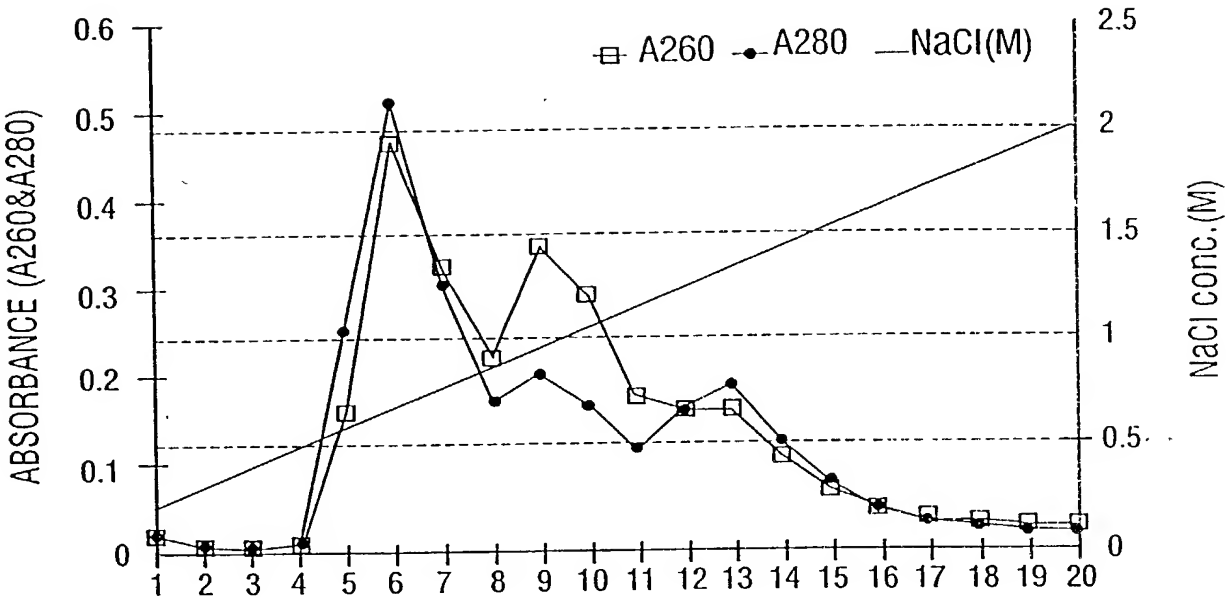

A260
A280
NaCl(M)
ABSORBANCE (A260&A280)
NaCl conc.(M)
0.6
0.5
0.4
0.3
0.2
0.1
0
2.5
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

FIG. 6

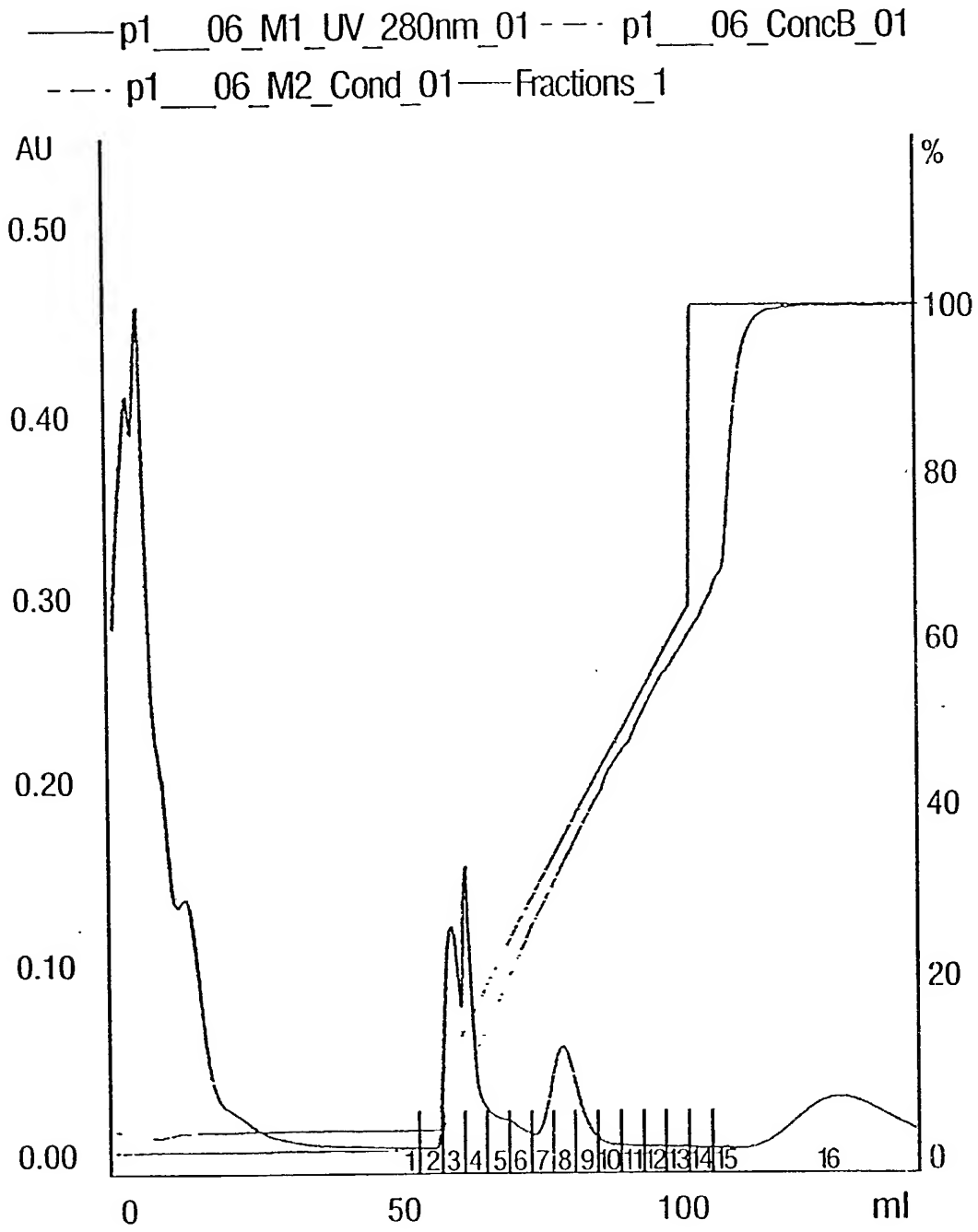

p1___06_M1_UV_280nm_01
p1___06_ConcB_01
p1___06_M2_Cond_01
Fractions_1
AU
%
0.50
0.40
0.30
0.20
0.10
0.00
100
80
60
40
20
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0
50
100
ml

FIG. 7

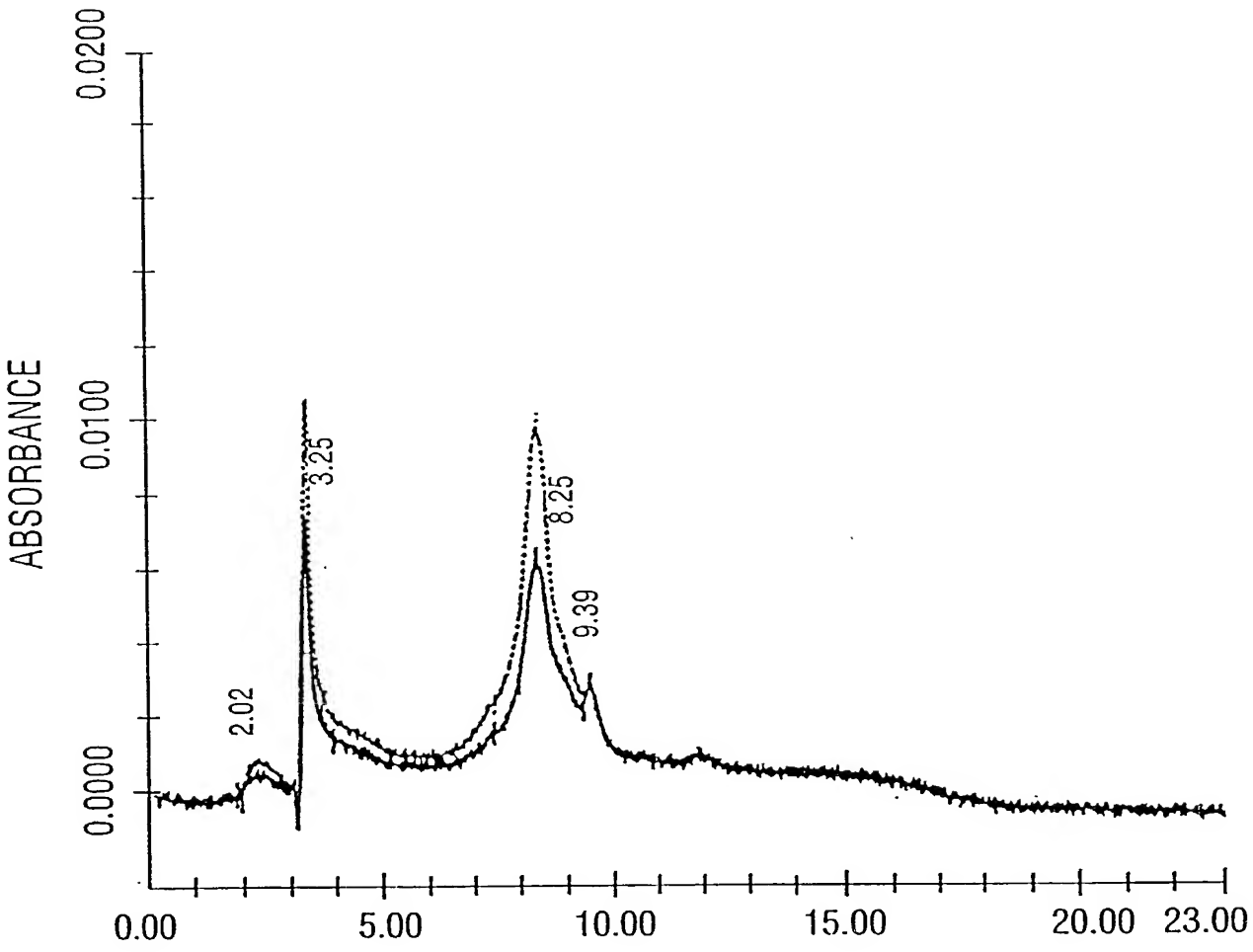


FIG. 8A

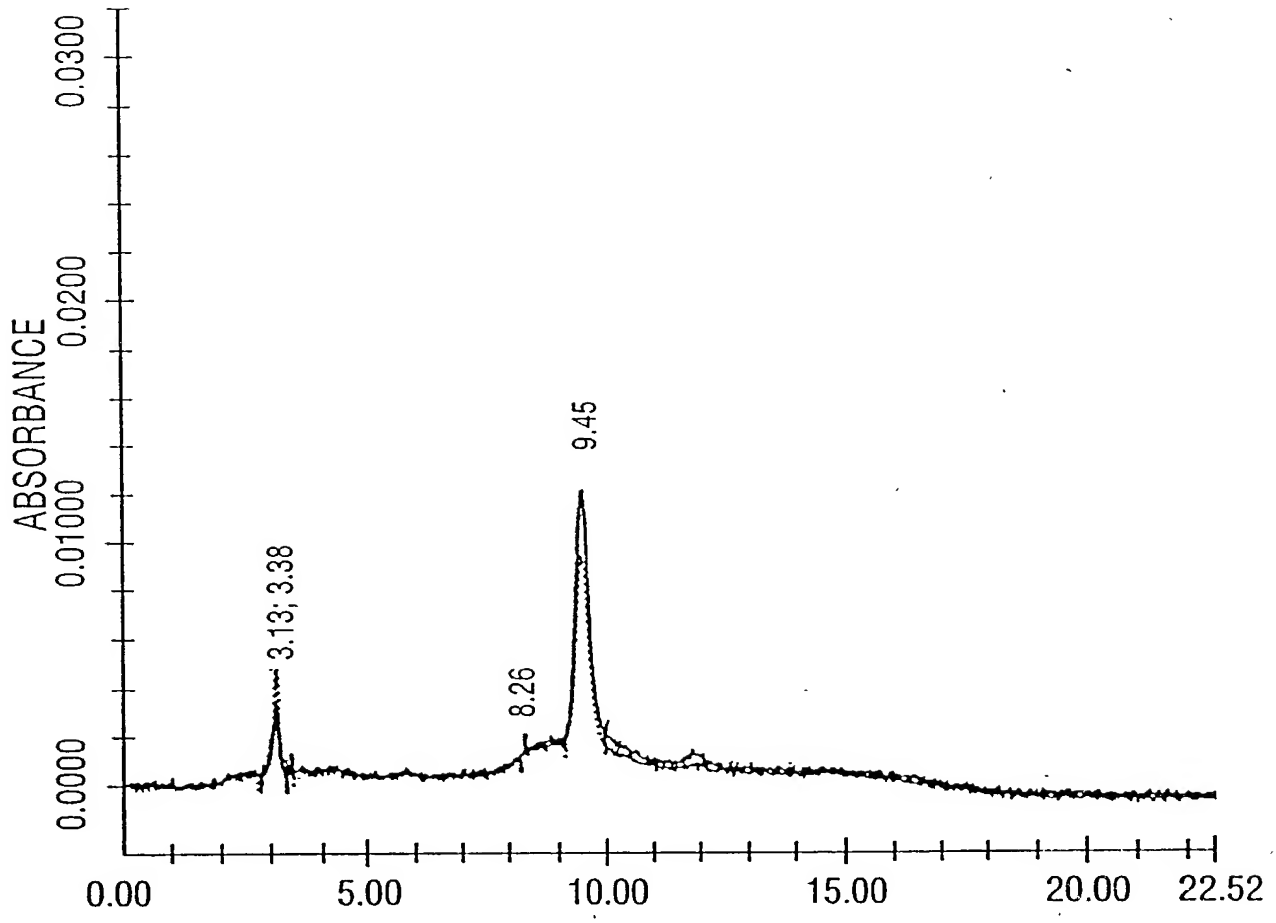

ABSORBANCE
0.0000
0.01000
0.0200
0.0300
3.13; 3.38
8.26
9.45
0.00
5.00
10.00
15.00
20.00
22.52

FIG. 8B

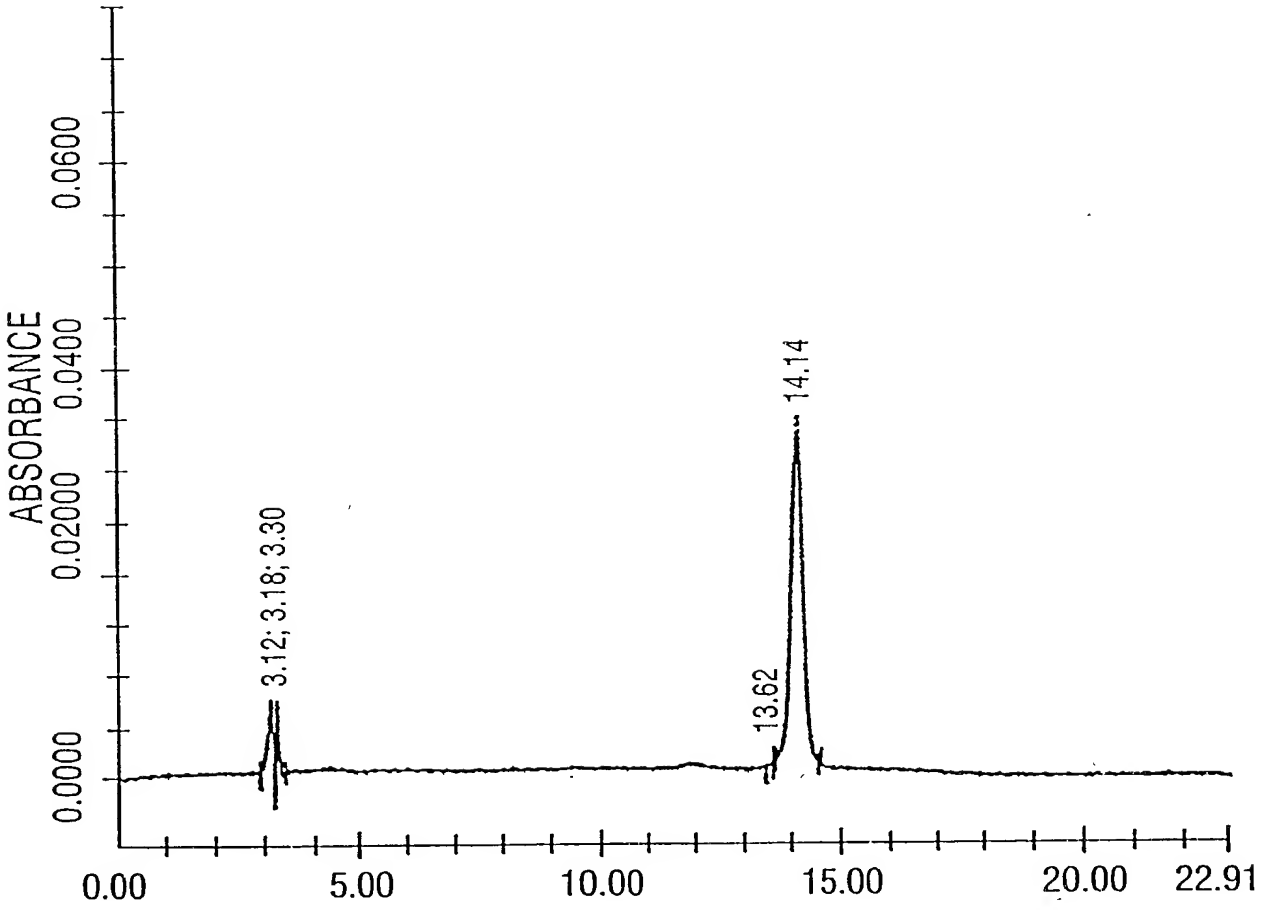

ABSORBANCE
0.0000
0.02000
0.0400
0.0600
3.12; 3.18; 3.30
13.62
14.14
0.00
5.00
10.00
15.00
20.00
22.91

FIG. 8C

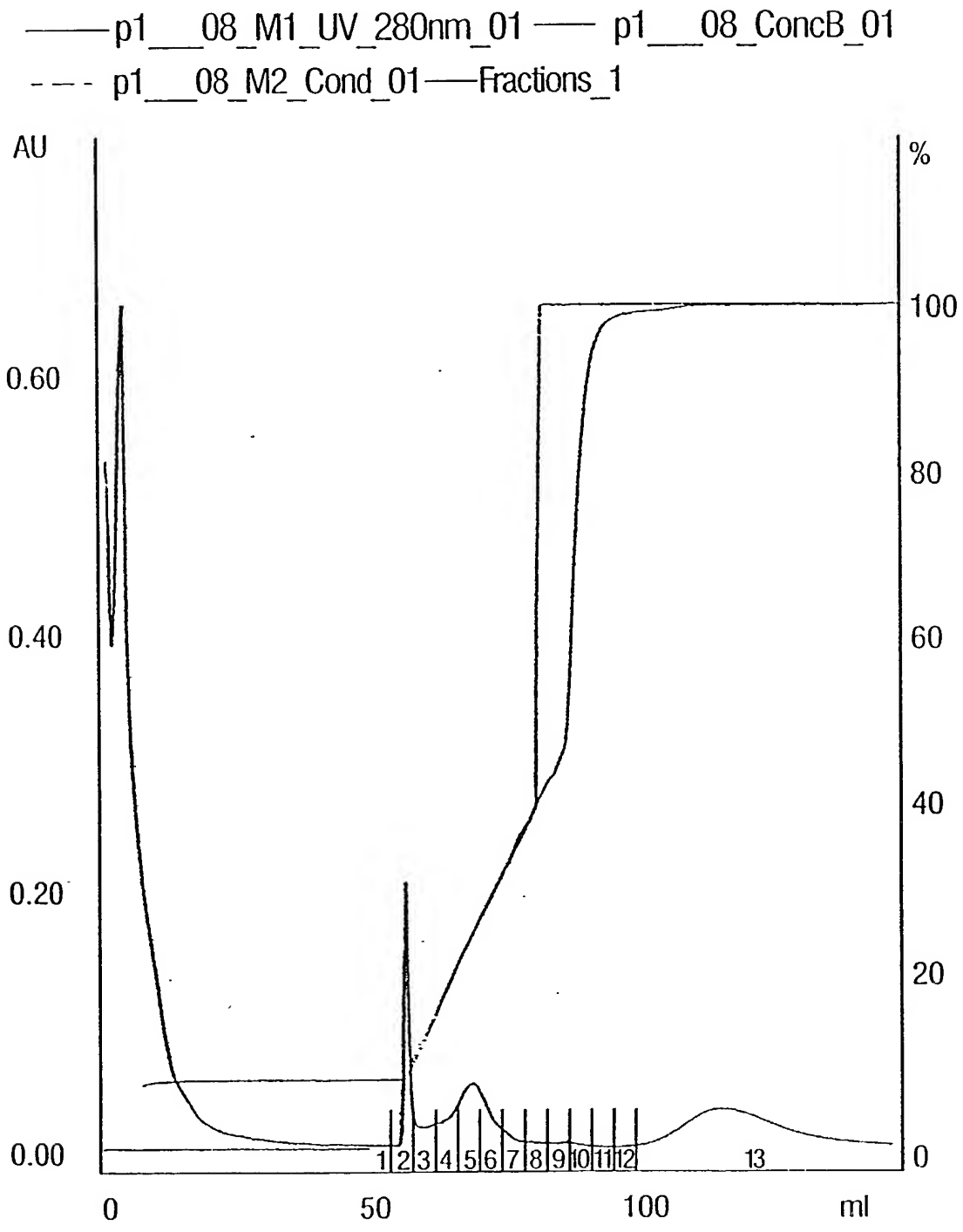

p1___08_M1_UV_280nm_01
p1___08_ConcB_01
p1___08_M2_Cond_01
Fractions_1
AU
%
0.60
0.40
0.20
0.00
100
80
60
40
20
0
1 2 3 4 5 6 7 8 9 10 11 12
13
0
50
100
ml

FIG. 9

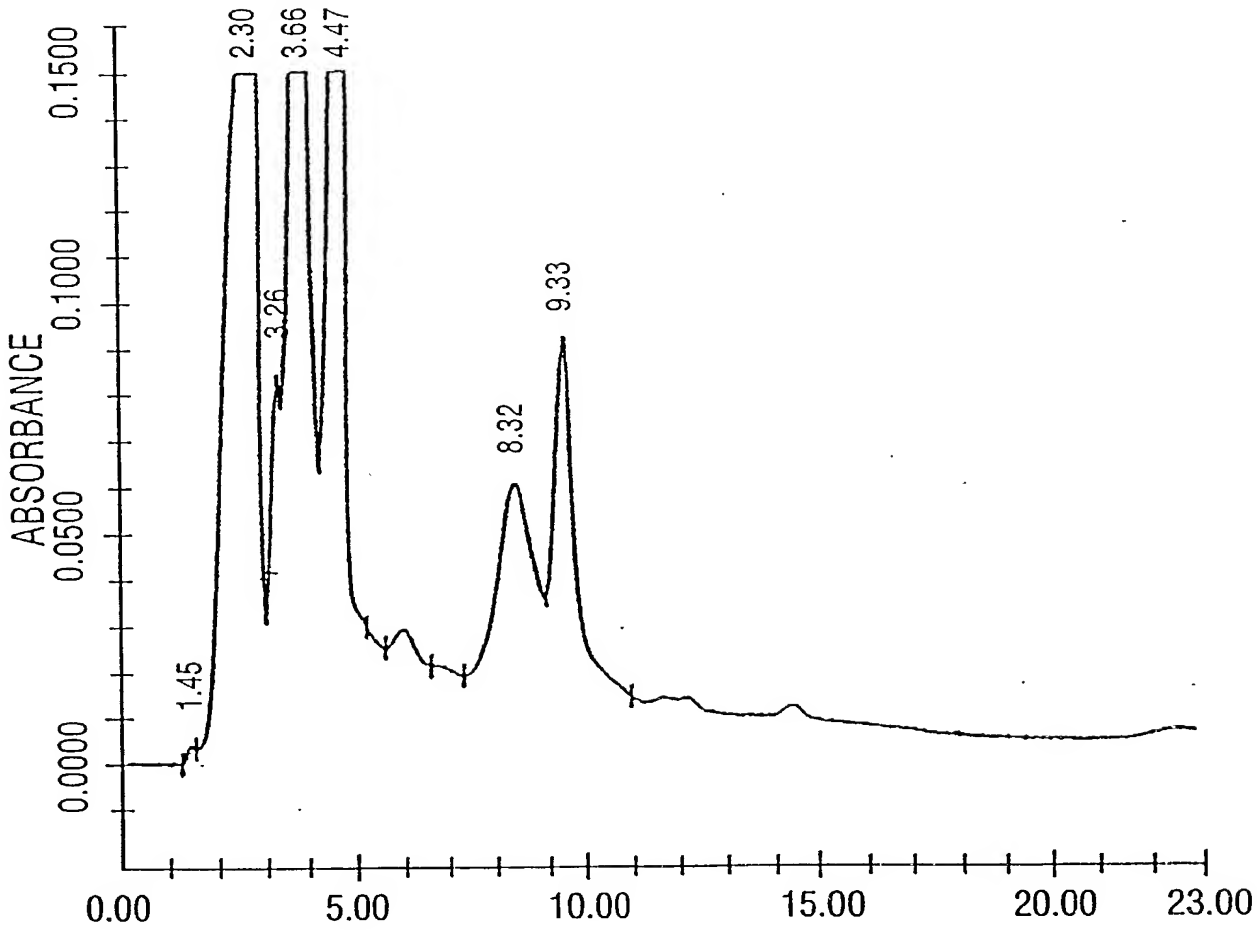

ABSORBANCE
0.1500
0.1000
0.0500
0.0000
1.45
2.30
3.26
3.66
4.47
8.32
9.33
0.00
5.00
10.00
15.00
20.00
23.00

FIG. 10A

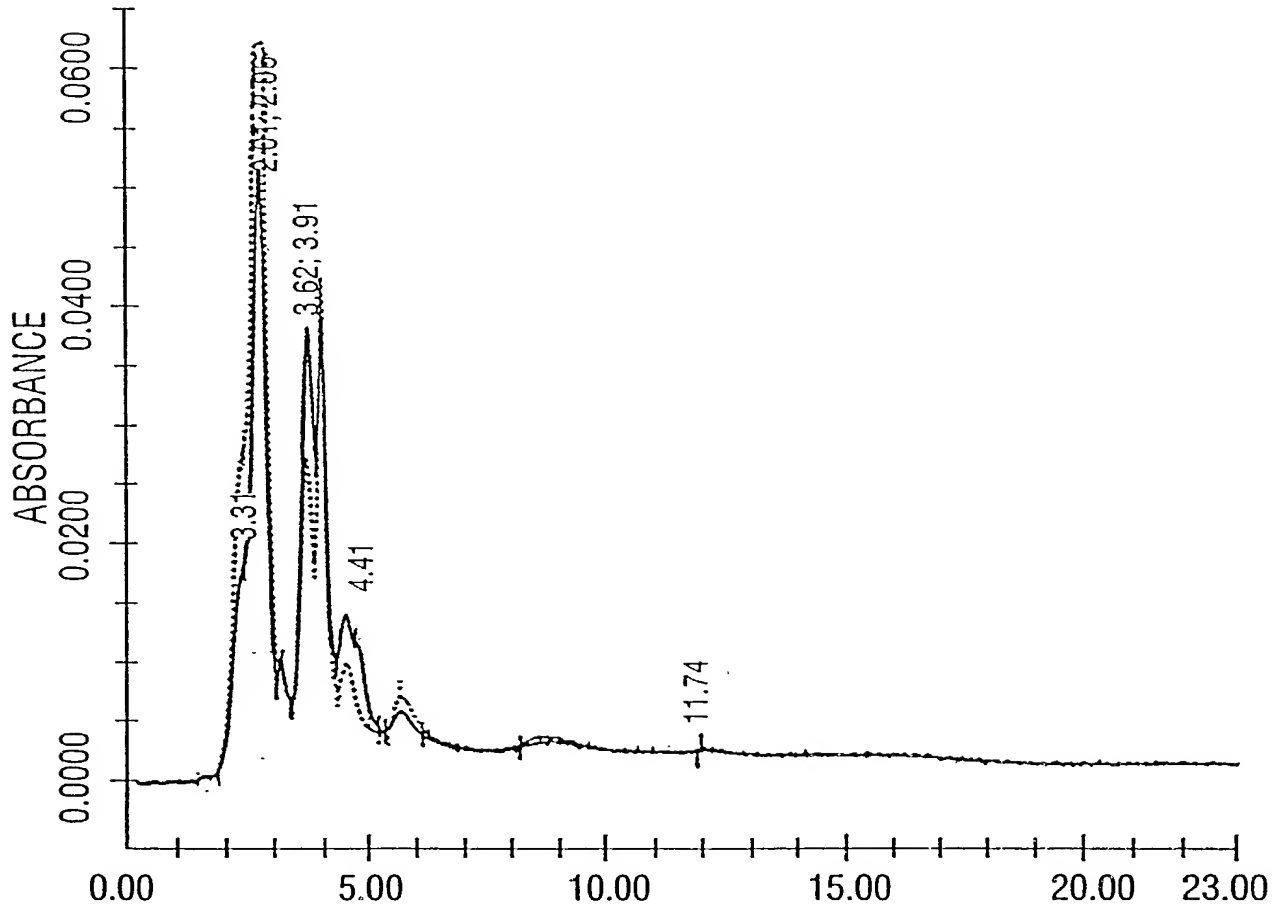


FIG. 10B

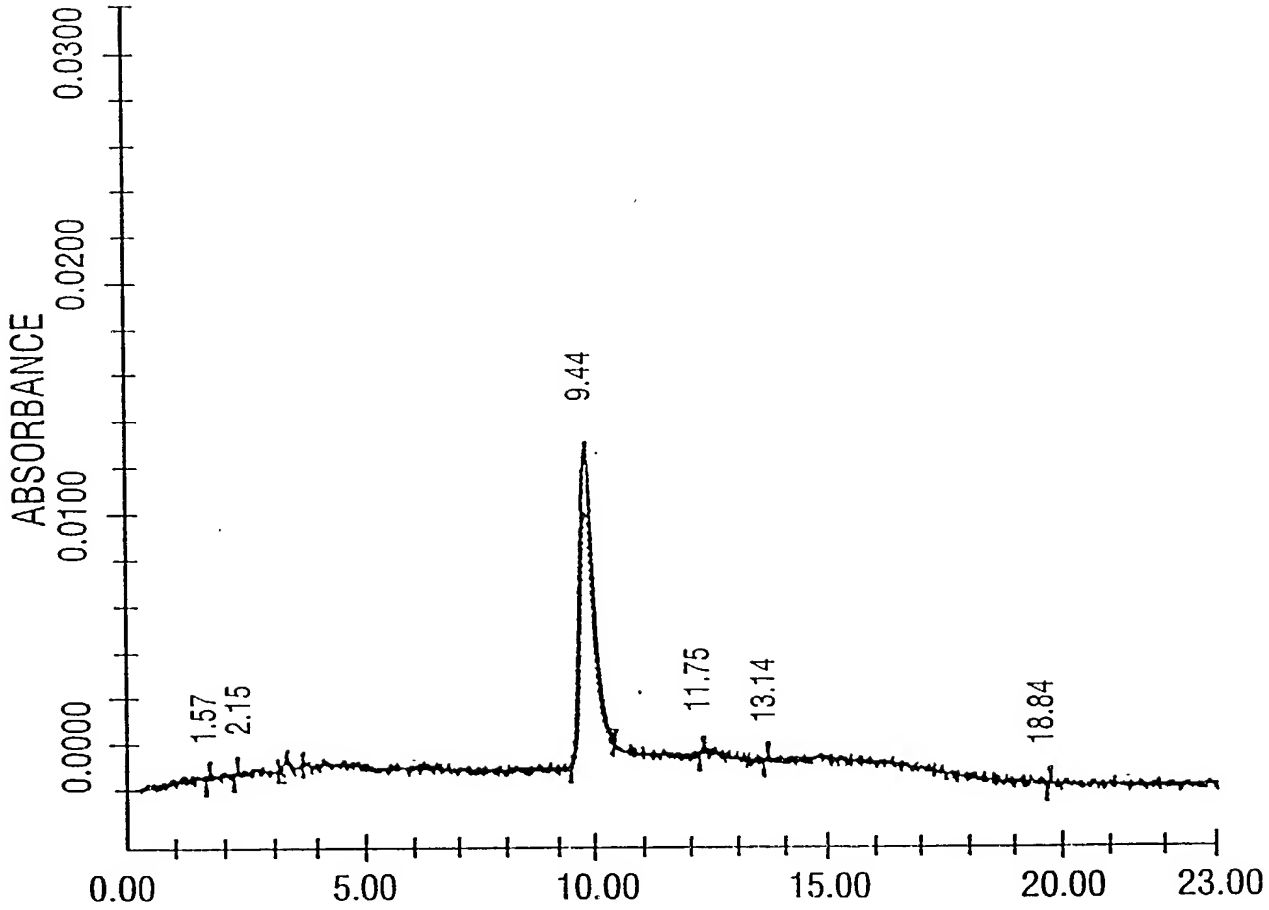

ABSORBANCE
0.0300
0.0200
0.0100
0.0000
1.57
2.15
9.44
11.75
13.14
18.84
0.00
5.00
10.00
15.00
20.00
23.00

FIG. 10C

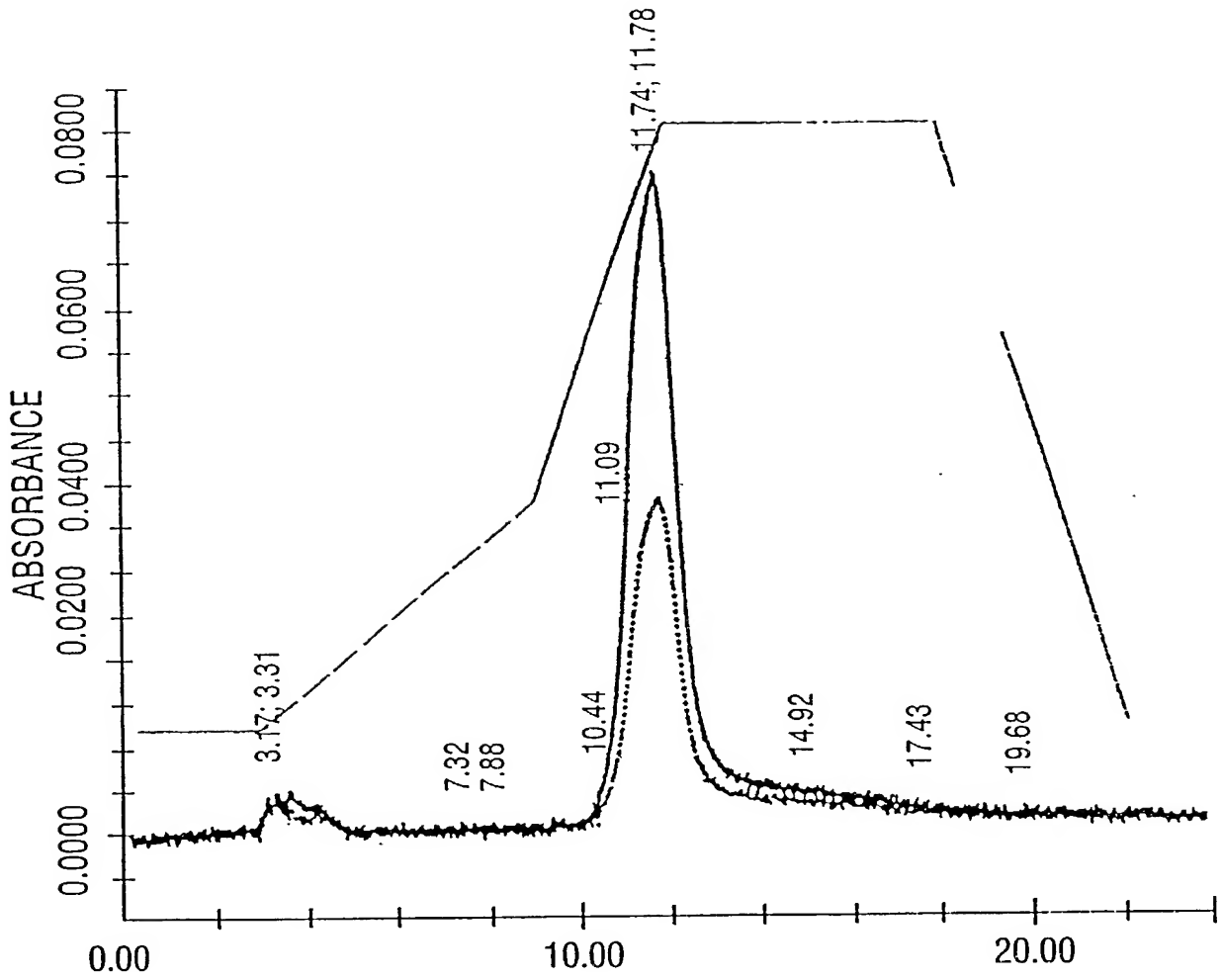

ABSORBANCE
0.0000
0.0200
0.0400
0.0600
0.0800
0.00
10.00
20.00
3.17; 3.31
7.32
7.88
10.44
11.09
11.74; 11.78
14.92
17.43
19.68

FIG. 10D

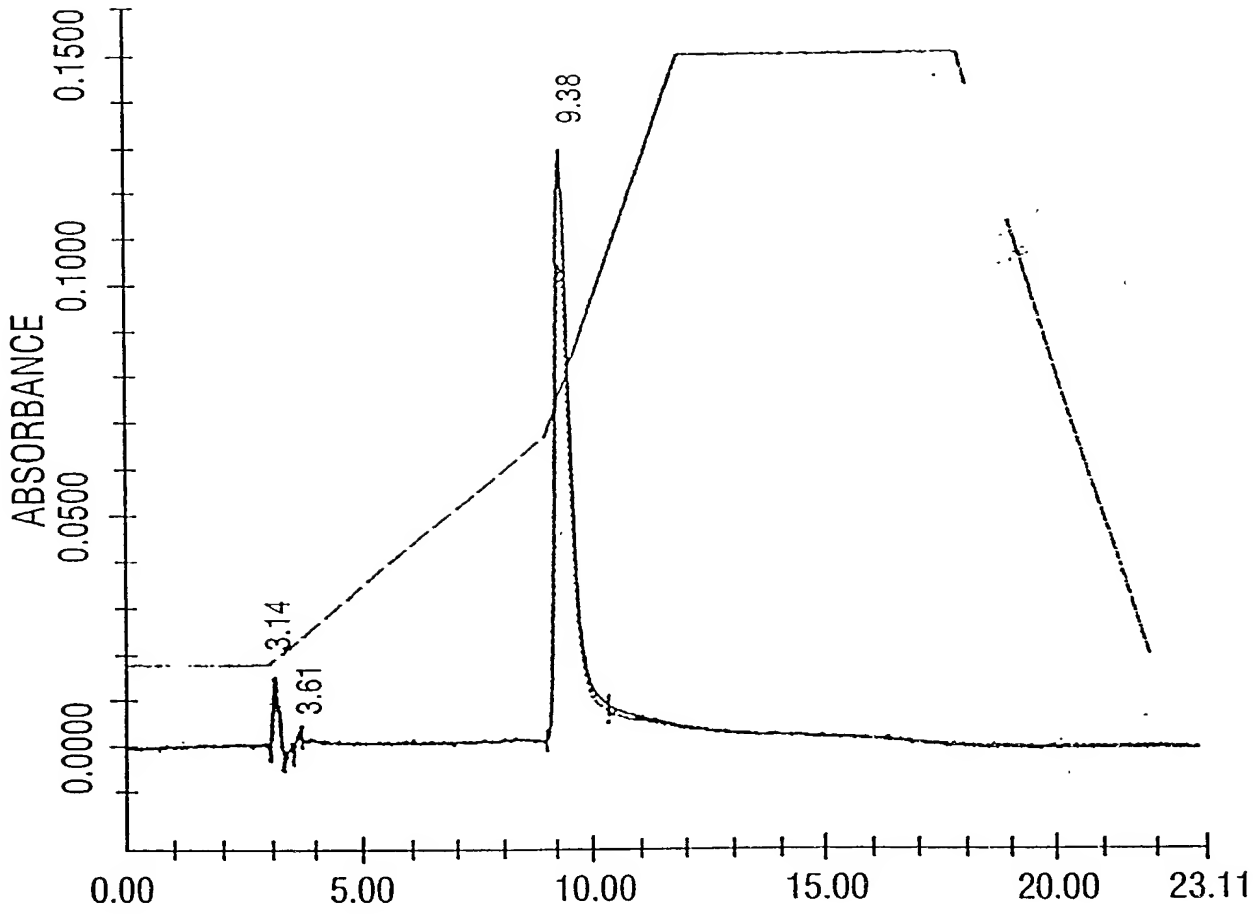

ABSORBANCE
0.1500
0.1000
0.0500
0.0000
9.38
3.14
3.61
0.00
5.00
10.00
15.00
20.00
23.11

FIG. 10E

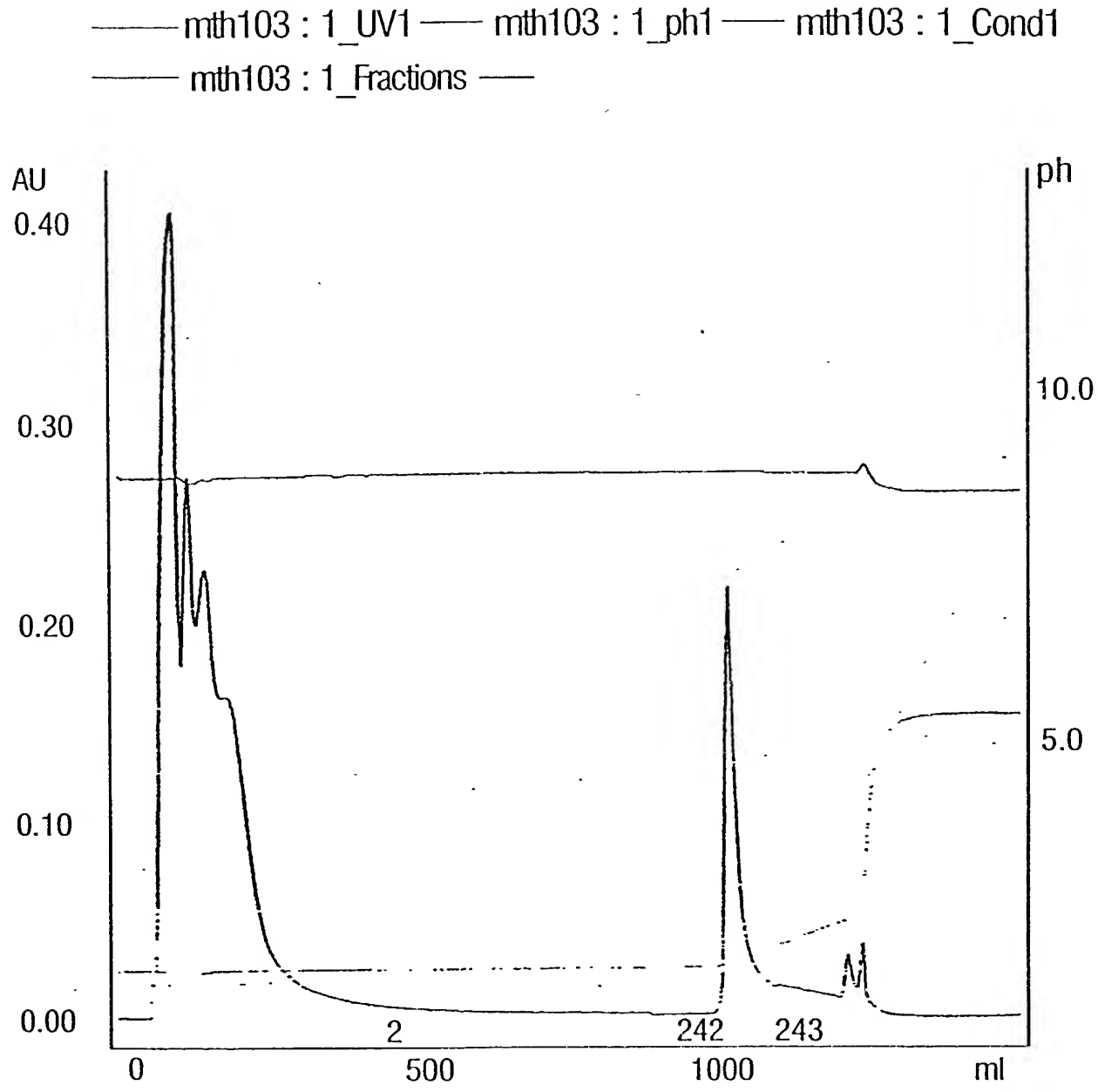


FIG. 11

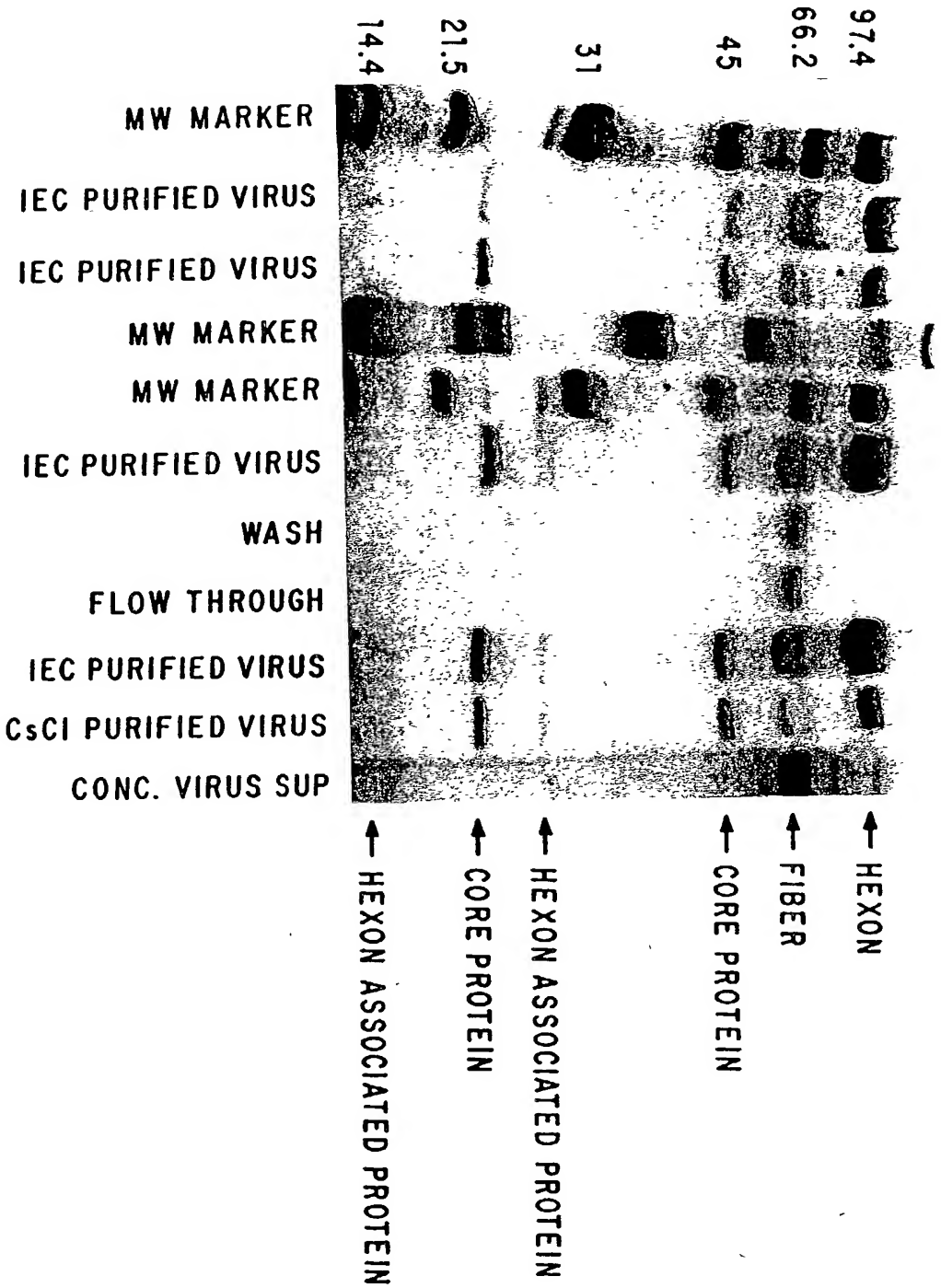


FIG.12

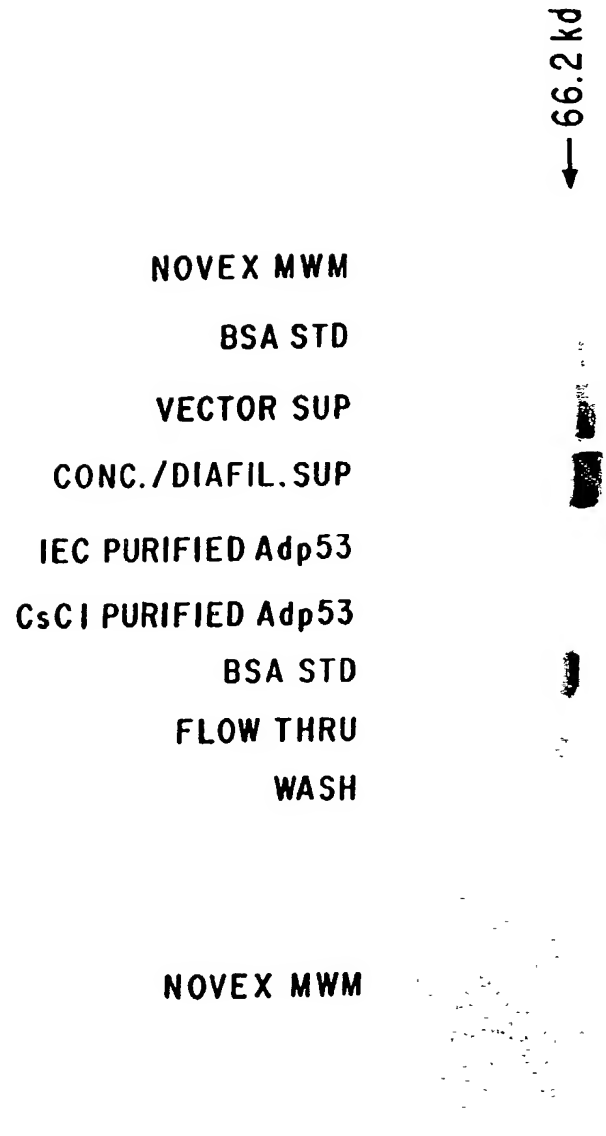


FIG.13

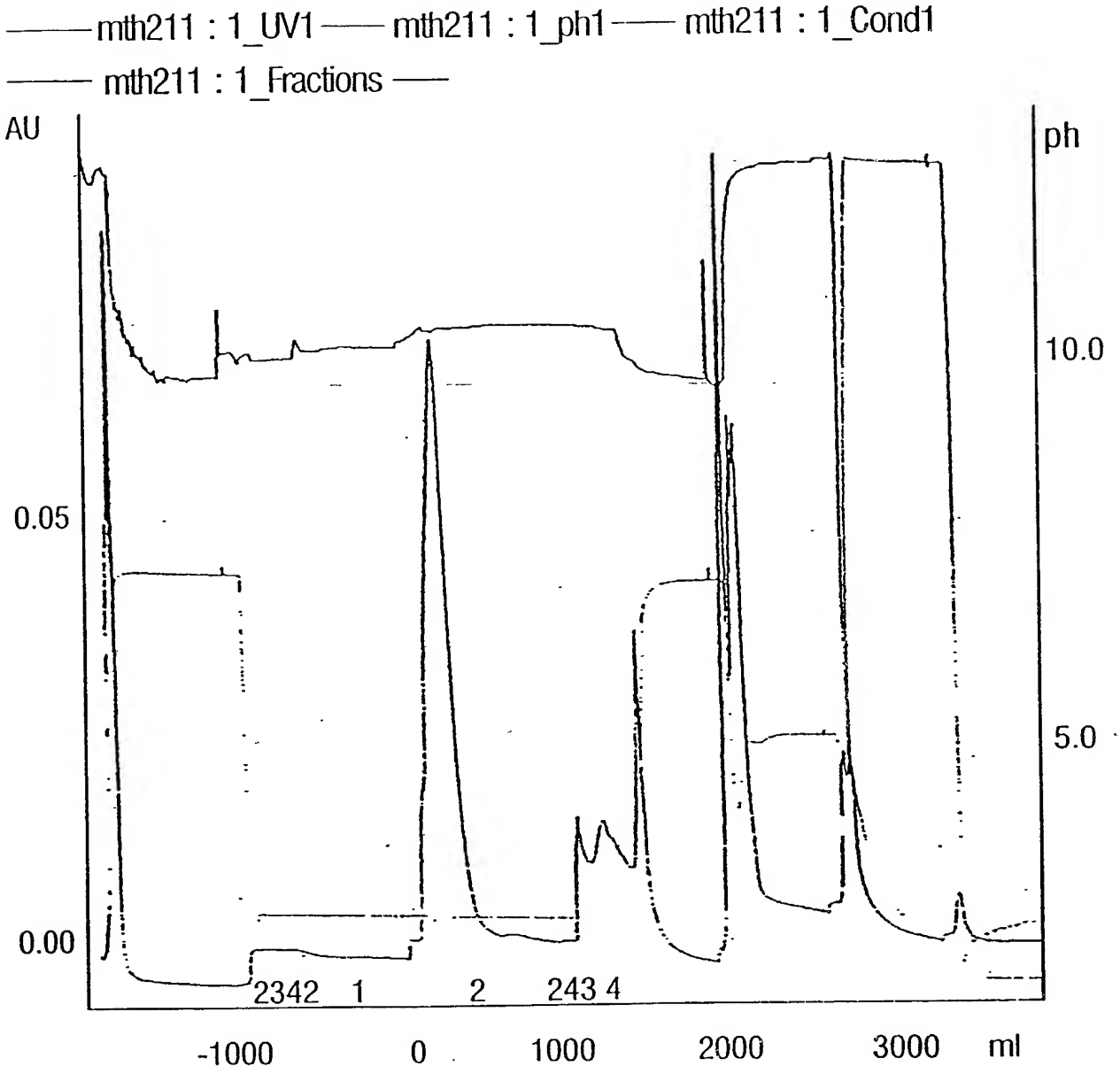


FIG. 14

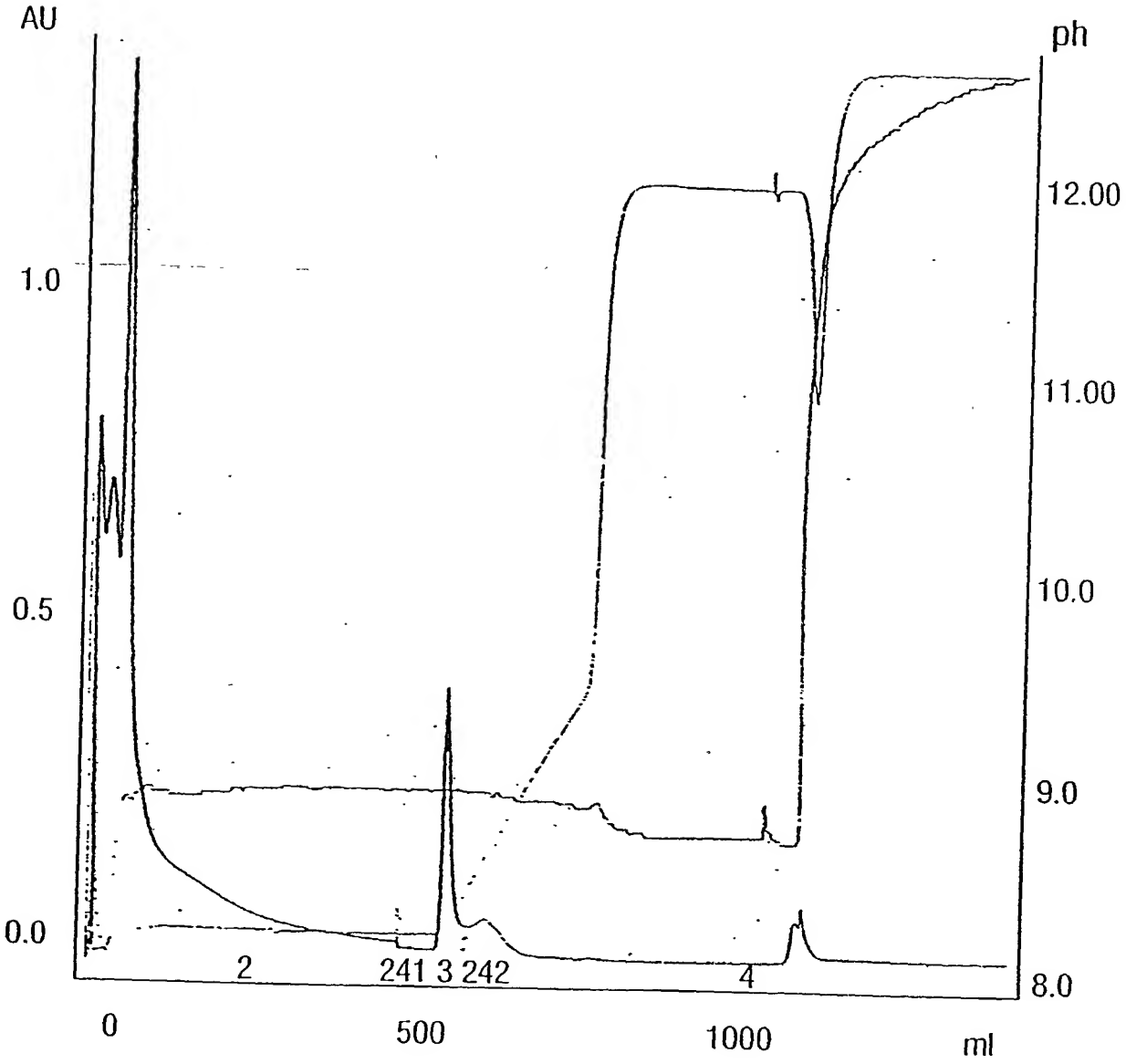


FIG. 15

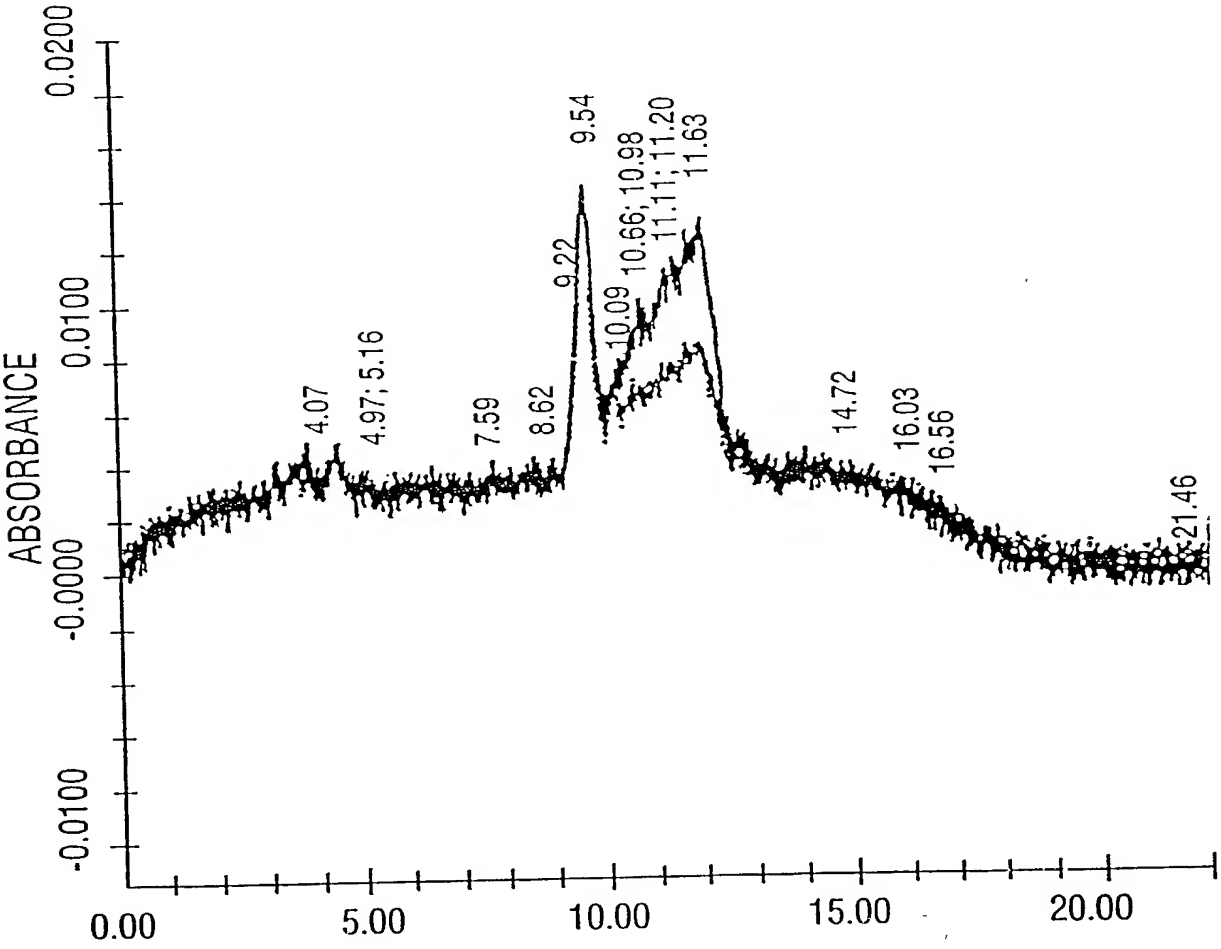

ABSORBANCE
0.0200
0.0100
-0.0000
-0.0100
0.00
5.00
10.00
15.00
20.00
4.07
4.97; 5.16
7.59
8.62
9.22
9.54
10.09
10.66; 10.98
11.11; 11.20
11.63
14.72
16.03
16.56
21.46

FIG. 16A

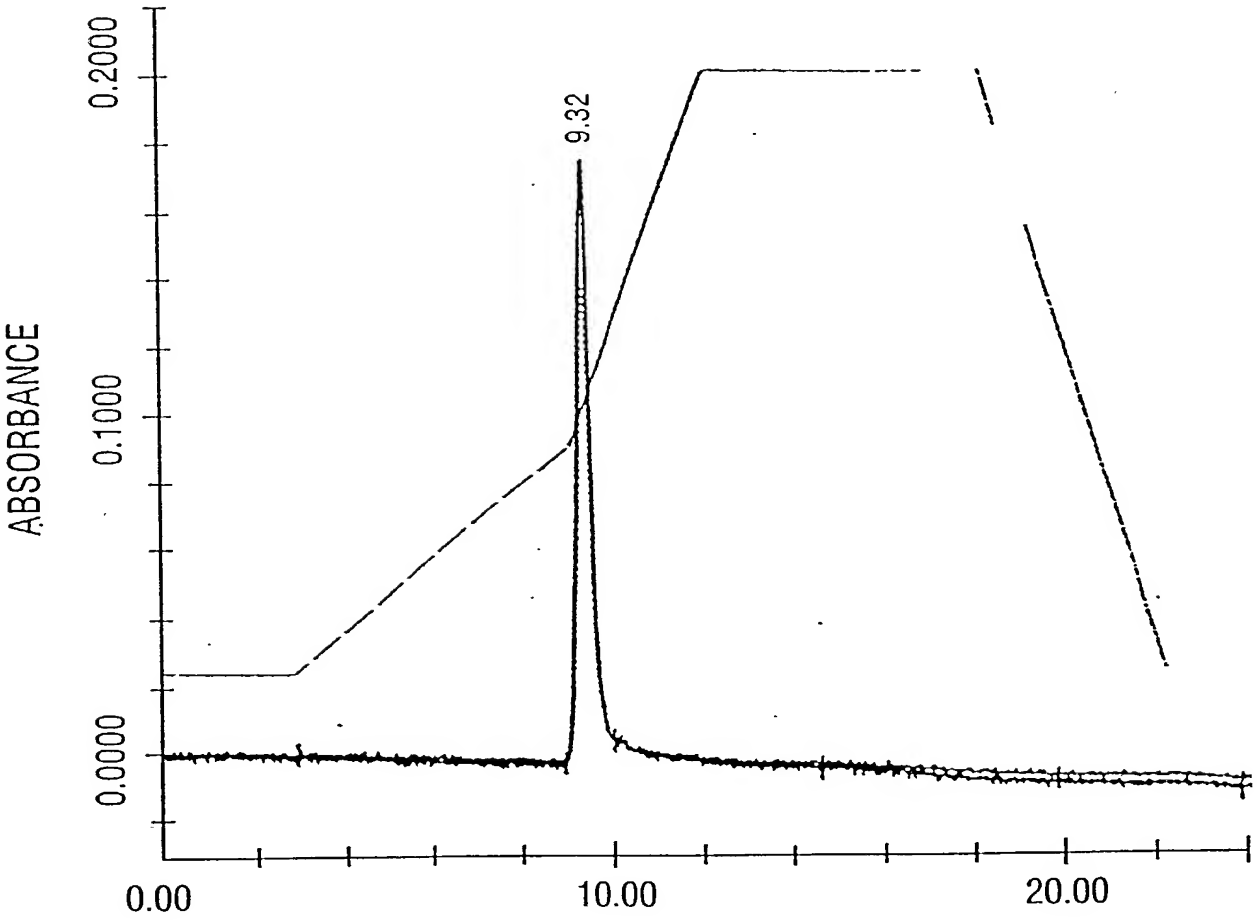


FIG. 16B

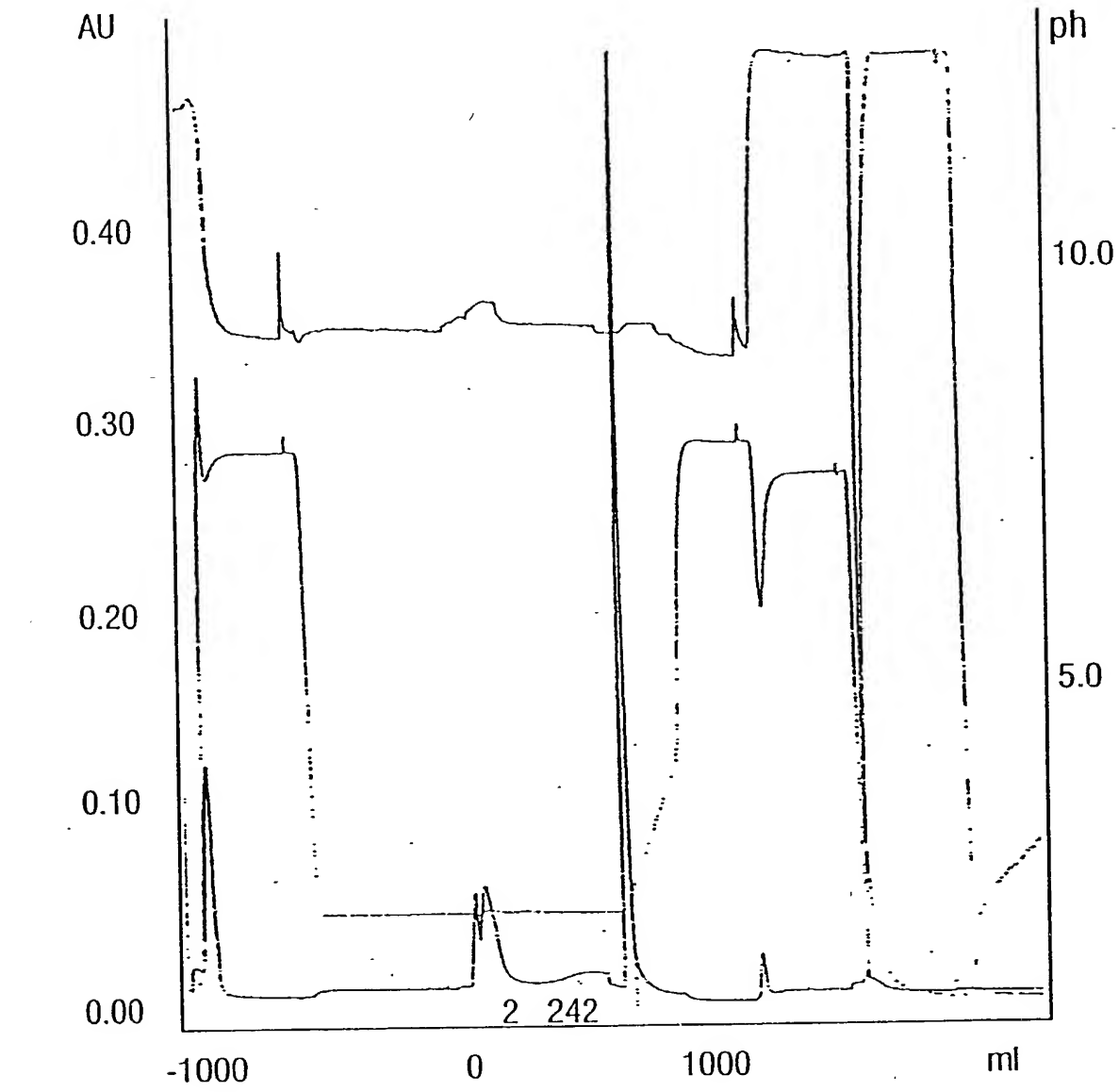

mth412 : 1_UV1
mth412 : 1_ph1
mth412 : 1_Cond1
mth412 : 1_Fractions
AU
ph
0.40
0.30
0.20
0.10
0.00
10.0
5.0
2 242
-1000
0
1000
ml

FIG. 17

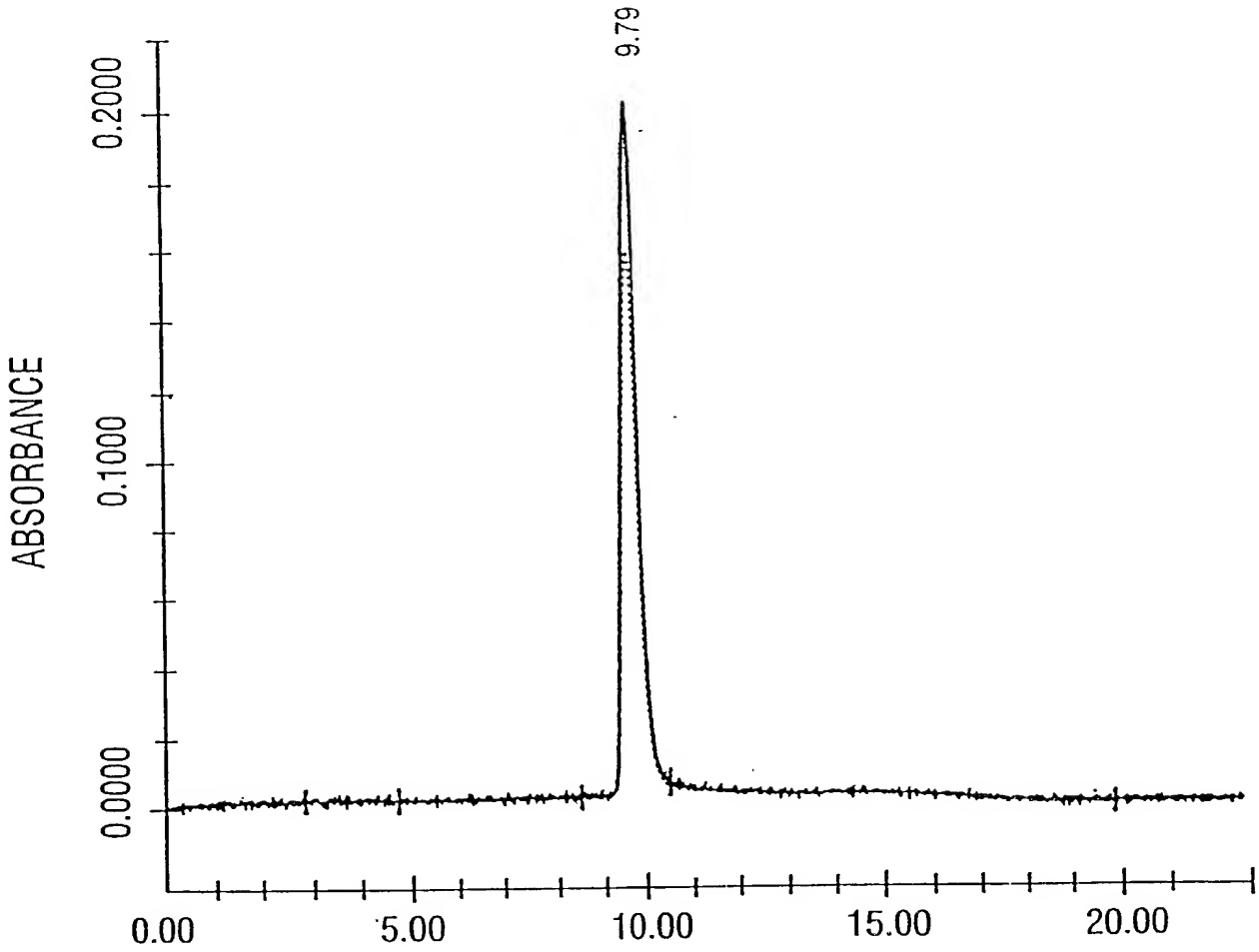


FIG. 18

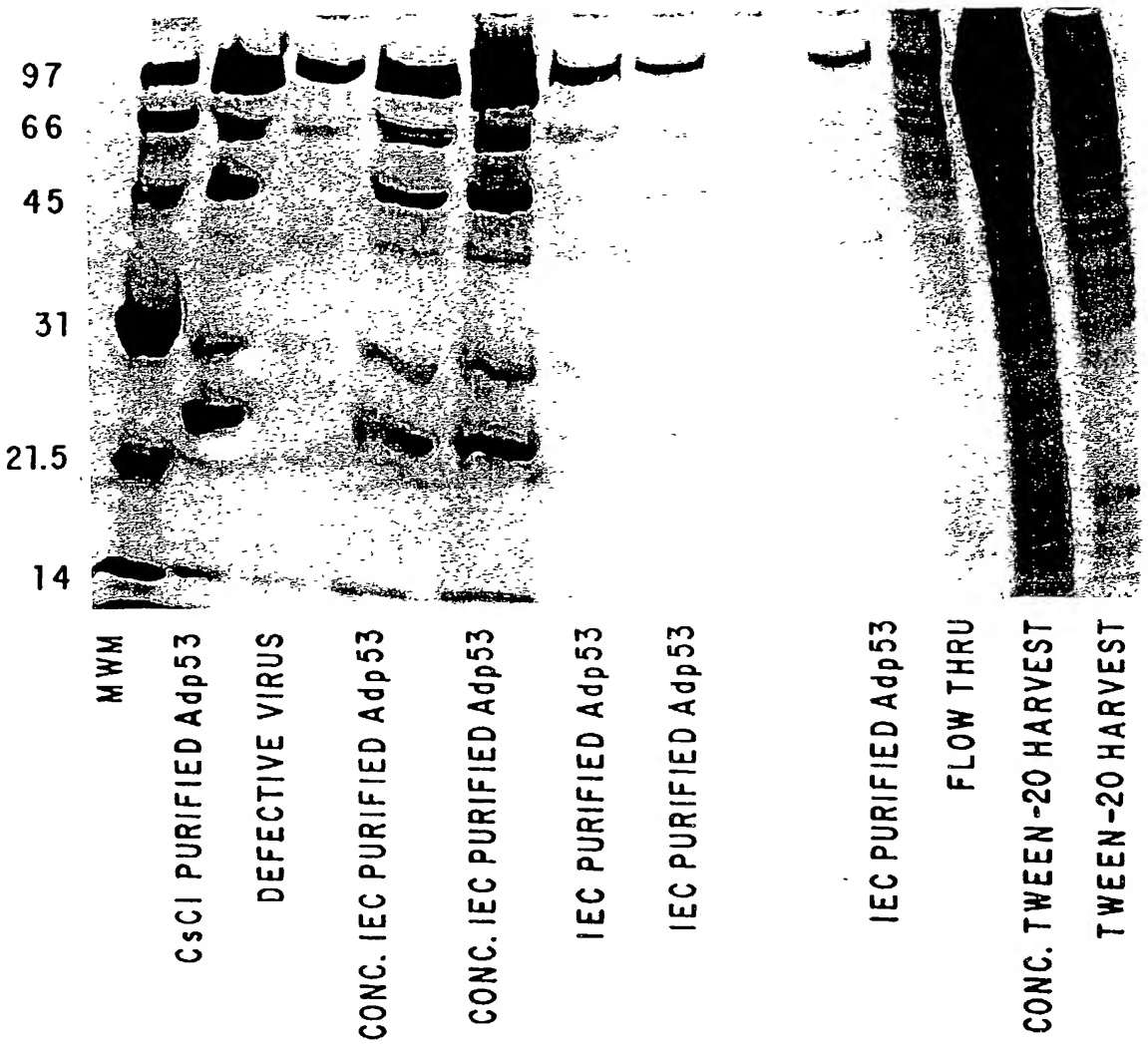

97
66
45
31
21.5
14
MWM
CsCl PURIFIED Adp53
DEFECTIVE VIRUS
CONC. IEC PURIFIED Adp53
CONC. IEC PURIFIED Adp53
IEC PURIFIED Adp53
IEC PURIFIED Adp53
IEC PURIFIED Adp53
FLOW THRU
CONC. TWEEN-20 HARVEST
TWEEN-20 HARVEST

FIG.19A

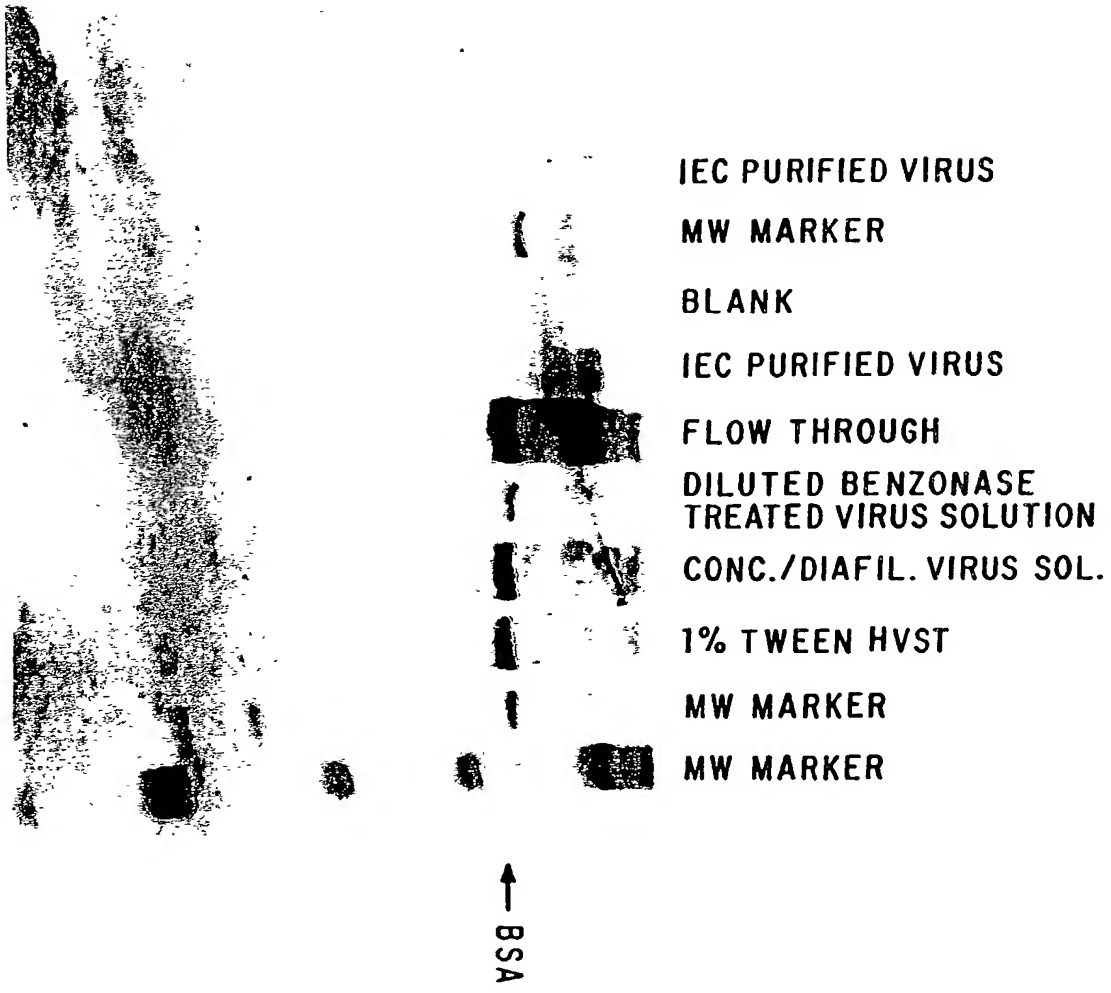

IEC PURIFIED VIRUS
MW MARKER
BLANK
IEC PURIFIED VIRUS
FLOW THROUGH
DILUTED BENZONASE TREATED VIRUS SOLUTION
CONC./DIAFIL. VIRUS SOL.
1% TWEEN HVST
MW MARKER
MW MARKER
BSA

FIG.19B

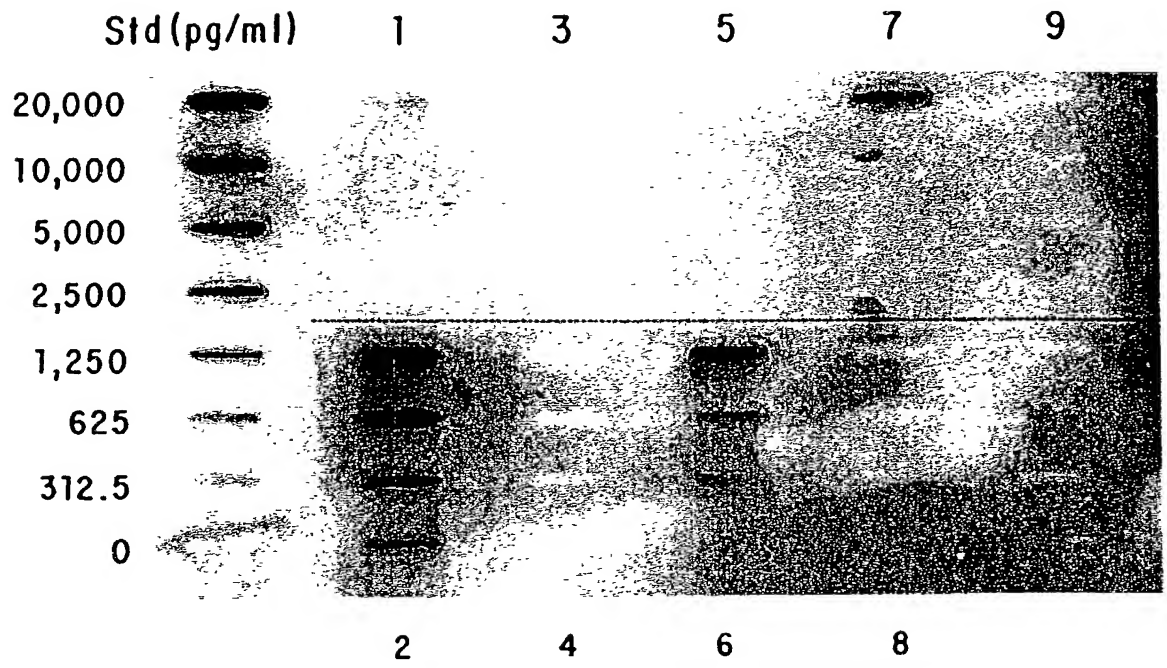


FIG. 19C

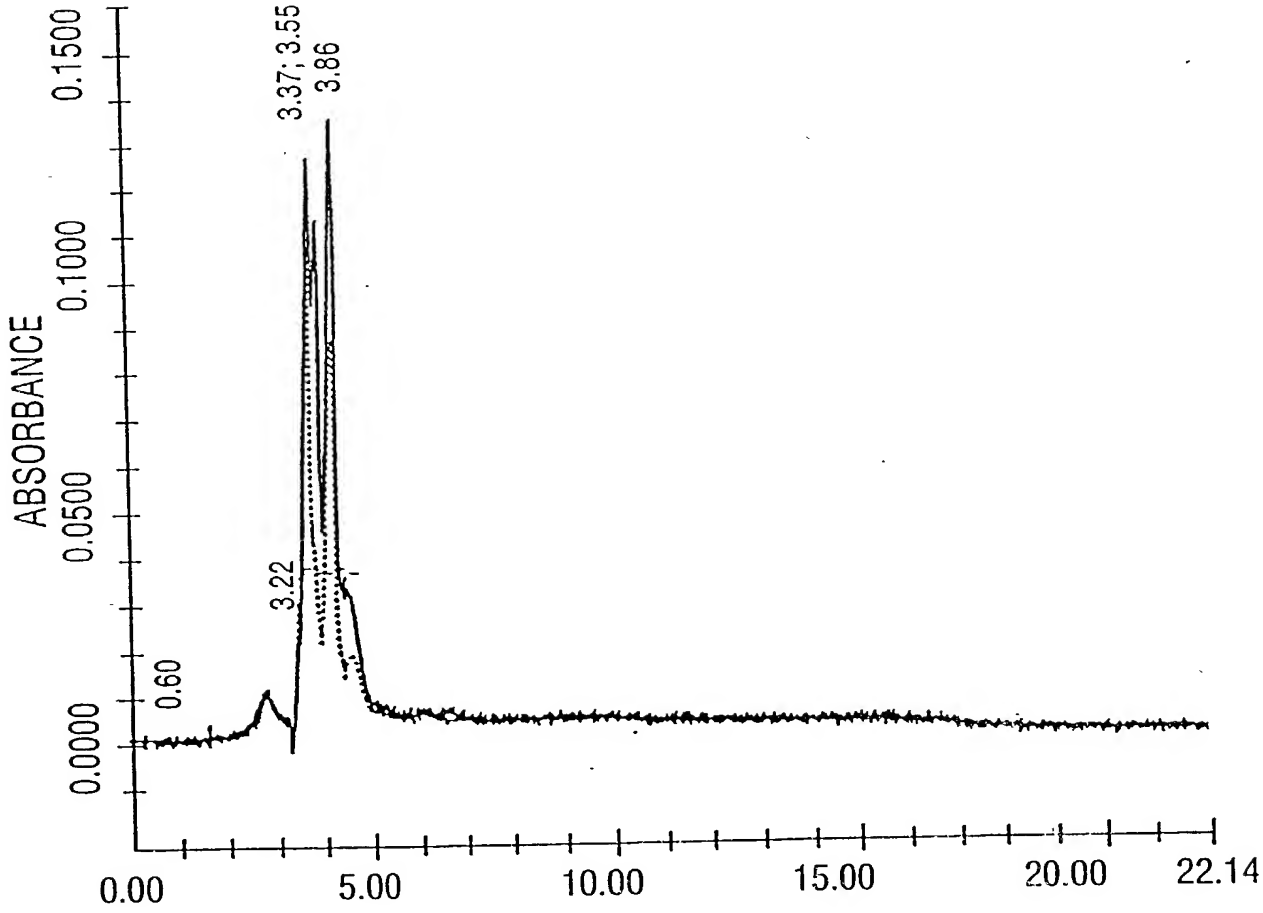

ABSORBANCE
0.1500
0.1000
0.0500
0.0000
3.37; 3.55
3.86
3.22
0.60
0.00
5.00
10.00
15.00
20.00
22.14

FIG. 20A

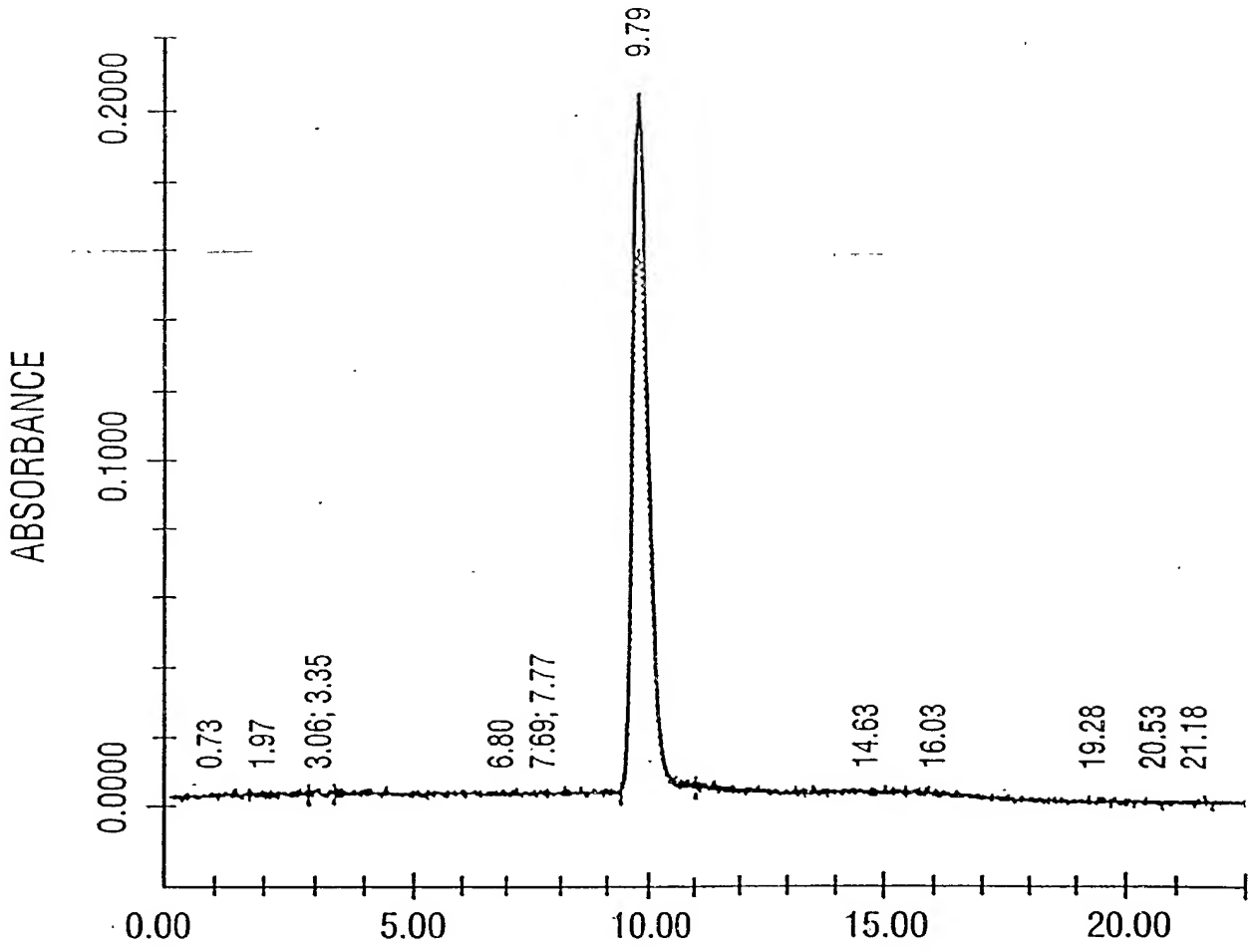

ABSORBANCE
0.2000
0.1000
0.0000
0.73
1.97
3.06; 3.35
6.80
7.69; 7.77
9.79
14.63
16.03
19.28
20.53
21.18
0.00
5.00
10.00
15.00
20.00

FIG. 20B

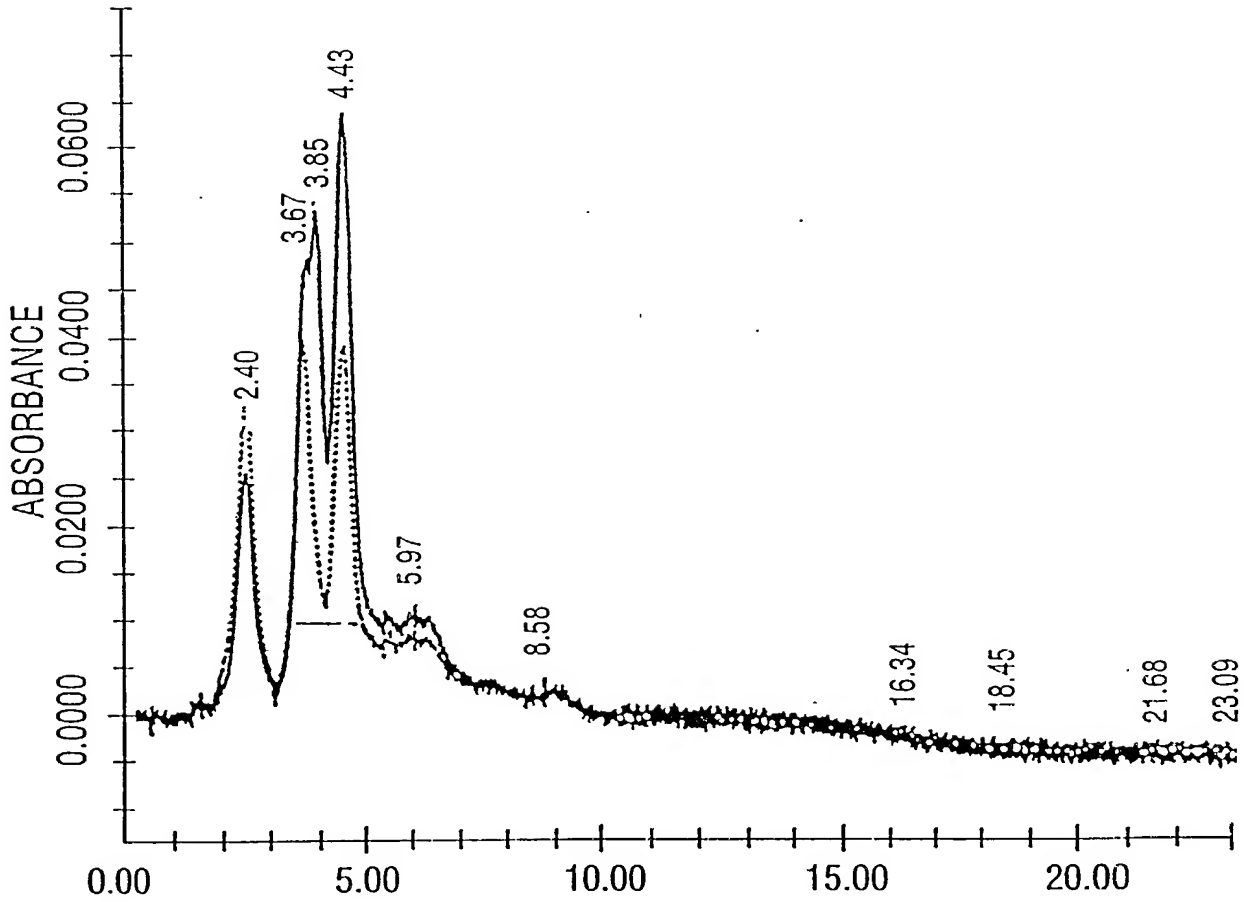

ABSORBANCE
0.0000
0.0200
0.0400
0.0600
2.40
3.67
3.85
4.43
5.97
8.58
16.34
18.45
21.68
23.09
0.00
5.00
10.00
15.00
20.00

FIG. 20C

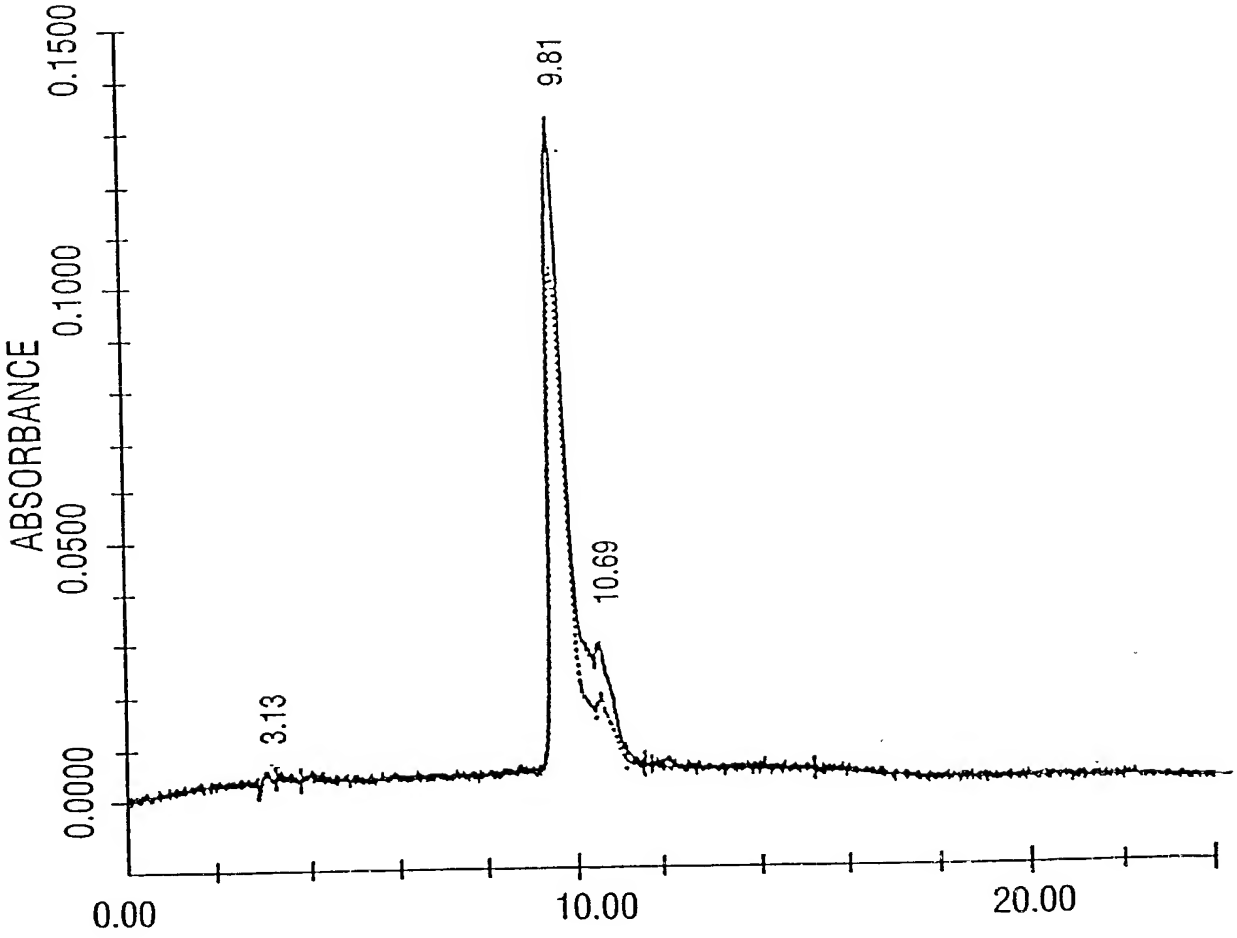

ABSORBANCE
0.1500
0.1000
0.0500
0.0000
9.81
10.69
3.13
0.00
10.00
20.00

FIG. 20D

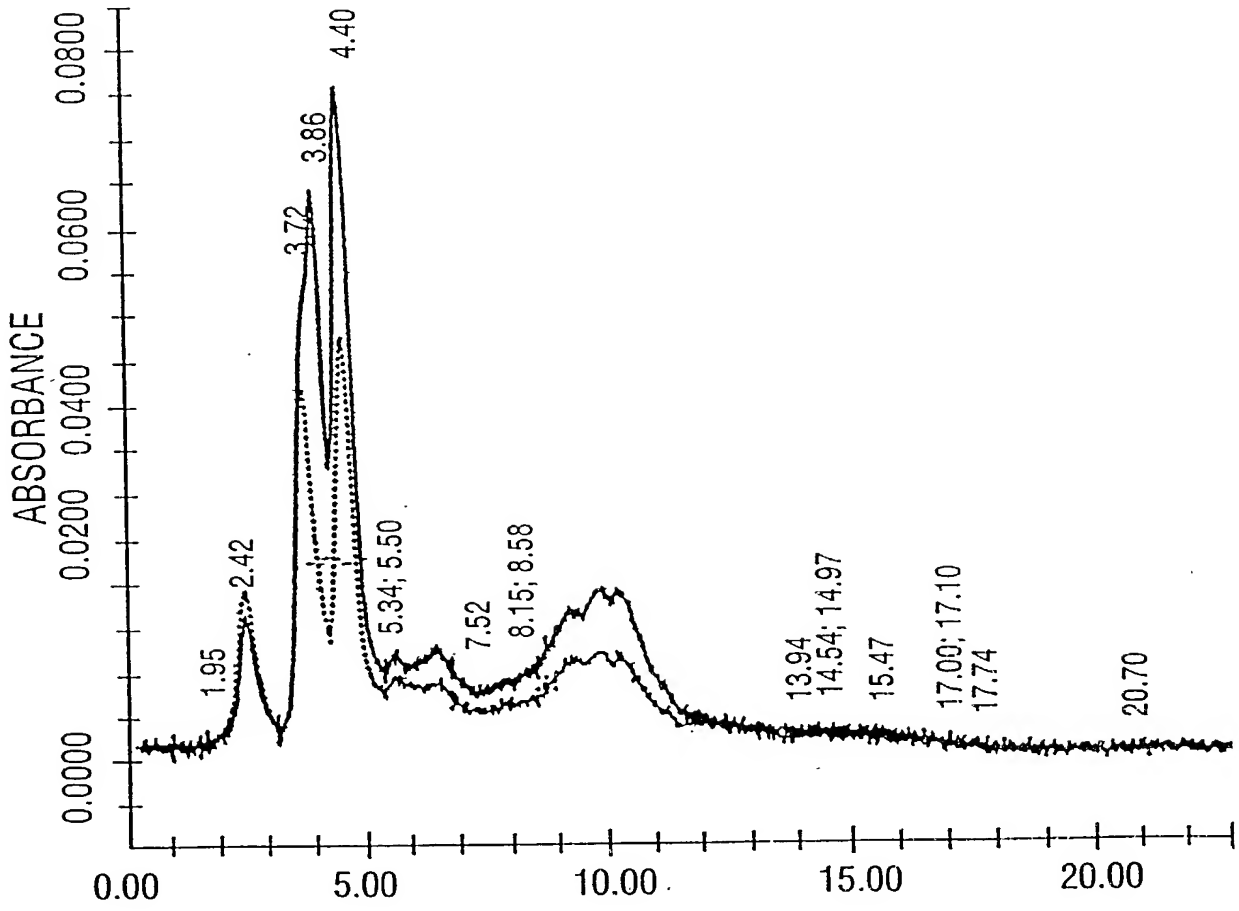

ABSORBANCE
0.0000
0.0200
0.0400
0.0600
0.0800
0.00
5.00
10.00
15.00
20.00
1.95
2.42
3.72
3.86
4.40
5.34; 5.50
7.52
8.15; 8.58
13.94
14.54; 14.97
15.47
17.00; 17.10
17.74
20.70

FIG. 20E

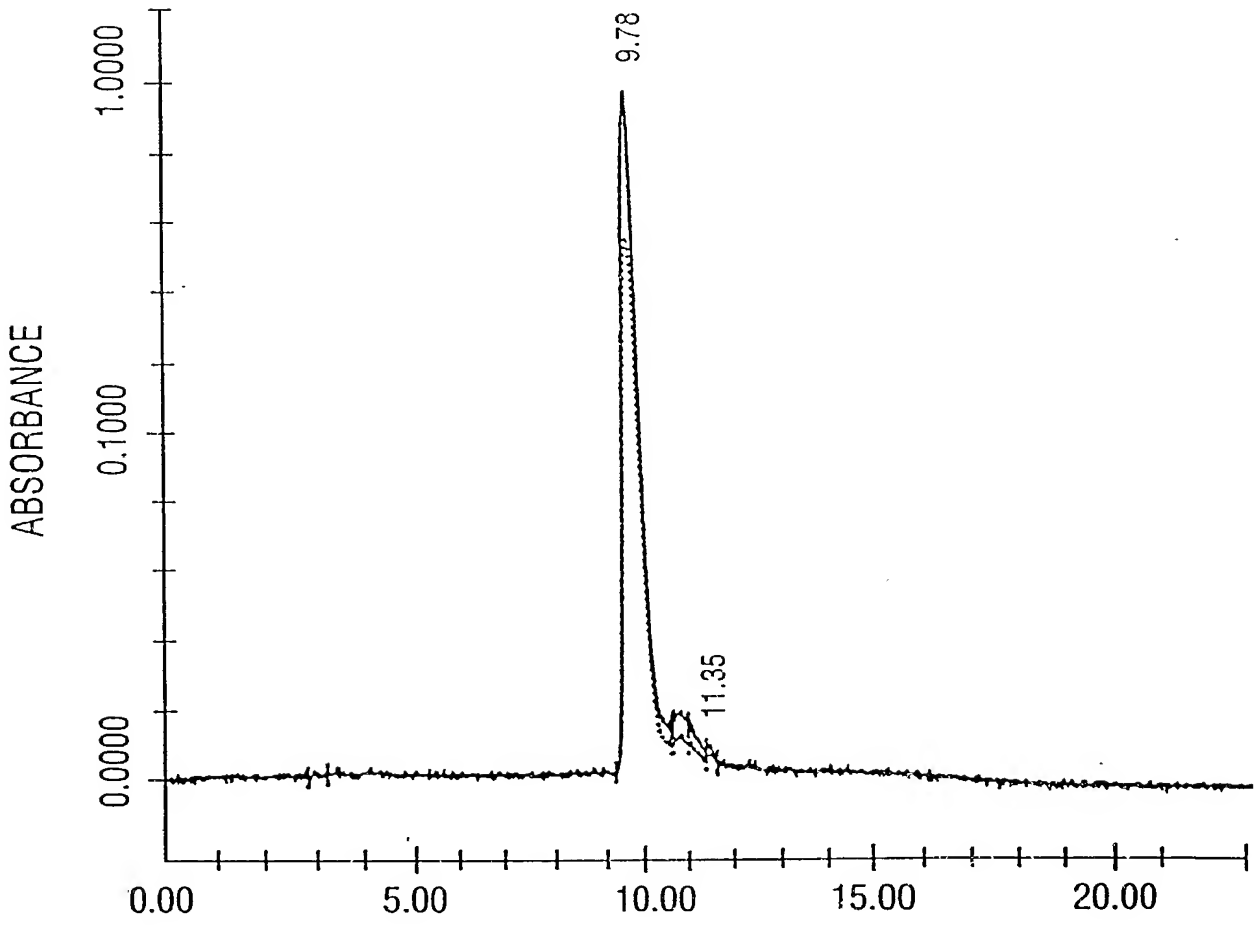
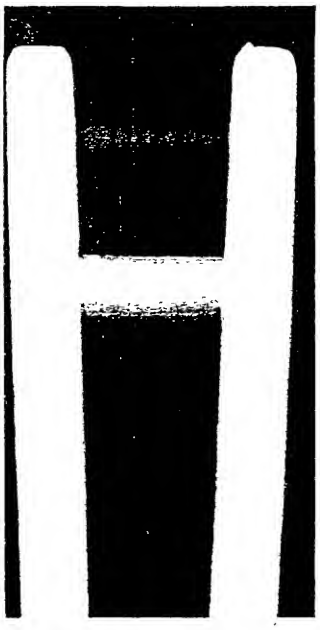

ABSORBANCE
1.0000
0.1000
0.0000
9.78
11.35
0.00
5.00
10.00
15.00
20.00

FIG. 20F



← DEFECTIVE VIRUS BAND (TITER: 3×10^7 PFU/ml)

← INTACT VIRUS BAND (TITER: 1×10^{11} PFU/ml)

FIG.21

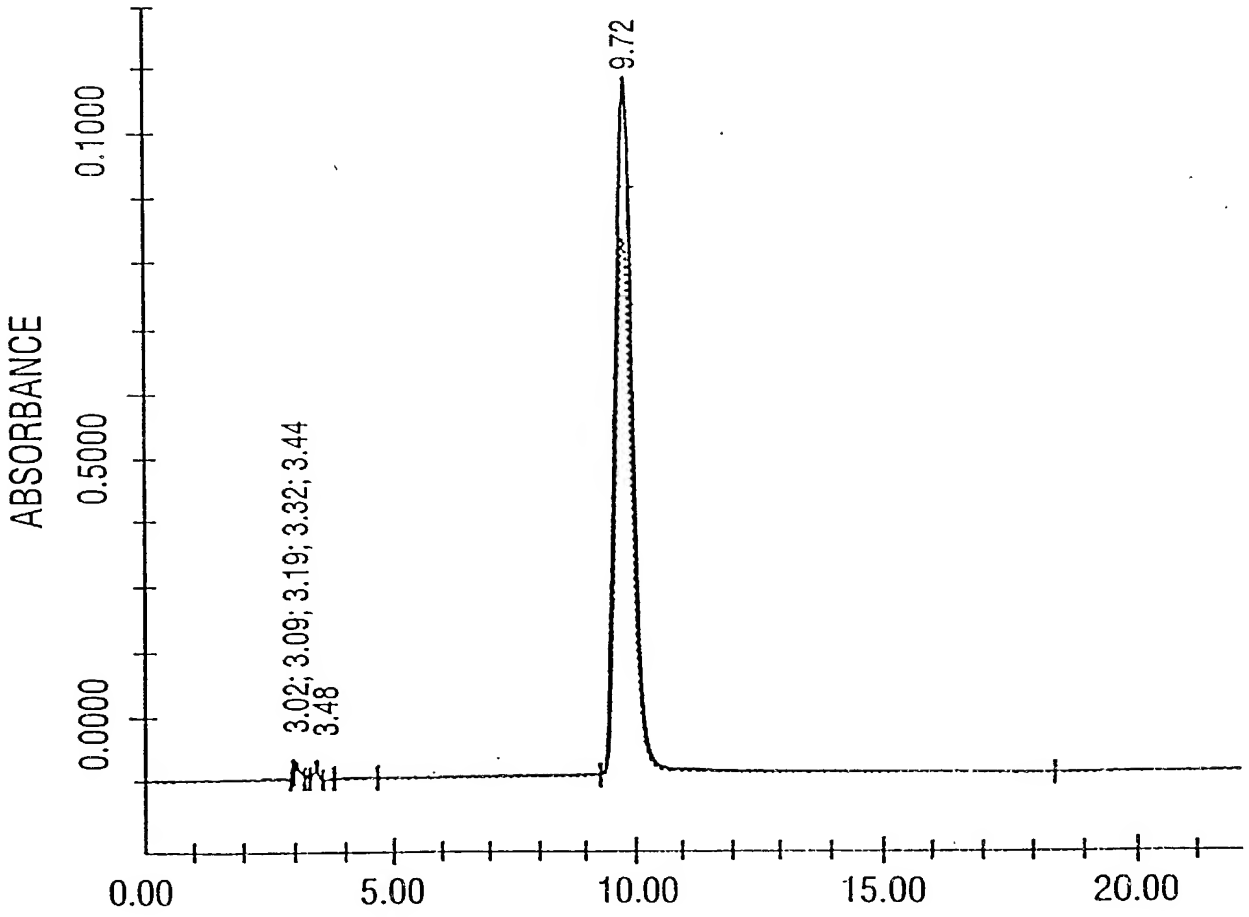

ABSORBANCE
0.1000
0.5000
0.0000
9.72
3.02; 3.09; 3.19; 3.32; 3.44
3.48
0.00
5.00
10.00
15.00
20.00

FIG. 22A

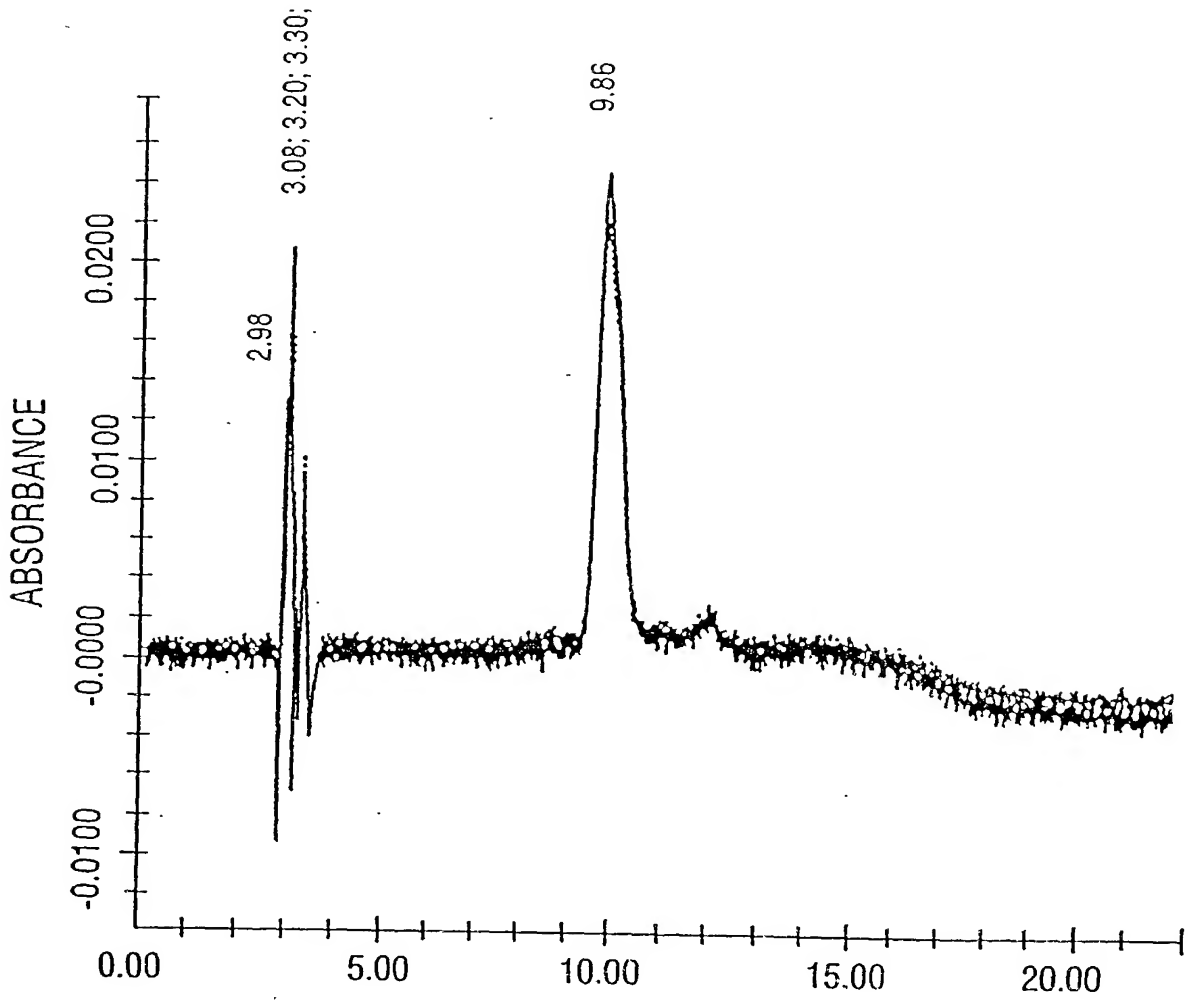

ABSORBANCE
0.0200
0.0100
-0.0000
-0.0100
2.98
3.08; 3.20; 3.30;
9.86
0.00
5.00
10.00
15.00
20.00

FIG. 22B

	TILTER (PFU/ML)	VOL. (ml)	YEILD (PFU)	RECOVERY (%)	
				STEP	ACC.
CUBE (LOW PERFUSION RATE KEEP GLUCOSE>1g/L) 1% TWEEN-20 BUFFER A					
↓ HARVEST					
↓ CLARIFICATION AND FILTRATION (0.22 UM)					
VIRUS SOLUTION	$2.6x10^9$	1900	$4.9x10^{12}$		
↓ CONC./DIAF. (10-FOLD CONC., DIAF INTO 1M NaCl BUFFER A					
CONC. SUP	$2.5x10^{10}$	200	$5x10^{12}$	102%	
↓ BENZONASE TREATMENT (O/N, RT, 100u/ml)					
TREATED SUP					
↓ DILUTED WITH WATER TO CONDUCTIVITY= 22-25 mS/cm	$7x10^9$	700	$4.9x10^{12}$	98%	100%
DILUTED VIRUS SOLUTION					
↓	$1.5x10^{10}$	240	$3.6x10^{12}$	73%	73%
PURIFIED VIRUS					
↓ CONC./DIAF (5-FOLD CONC)	$7x10^{10}$	50	$3.5x10^{12}$	97%	71%
FINAL PURIFIED PRODUCT					

FIG. 23